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(dates are tentative)

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Annual Review and Forecast Feb. 6
Microscopic Fiber Study....Feb. 13

COTTON

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Warping for Satisfactory Slashing and Weaving....Feb. 13
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WOOL

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SILK

Silks Imitating Woolens....Feb. 13
Winder Differential Motion..Feb. 20
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RAYON

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Processing Rayon Fabrics..Feb. 20

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Adjusting Full-Fashioned Machines .....Jan. 30
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Design and Figure Knitting on Circular Machines....Feb. 13

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Mixing Equipment ....Feb. 13

ENGINEERING

Preventing Vibration .... Feb. 13
Unit Heaters .... Mar. 5
Selecting Power Equipment..Mar. 5

Textile World

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Textile World

ESTABLISHED 1868

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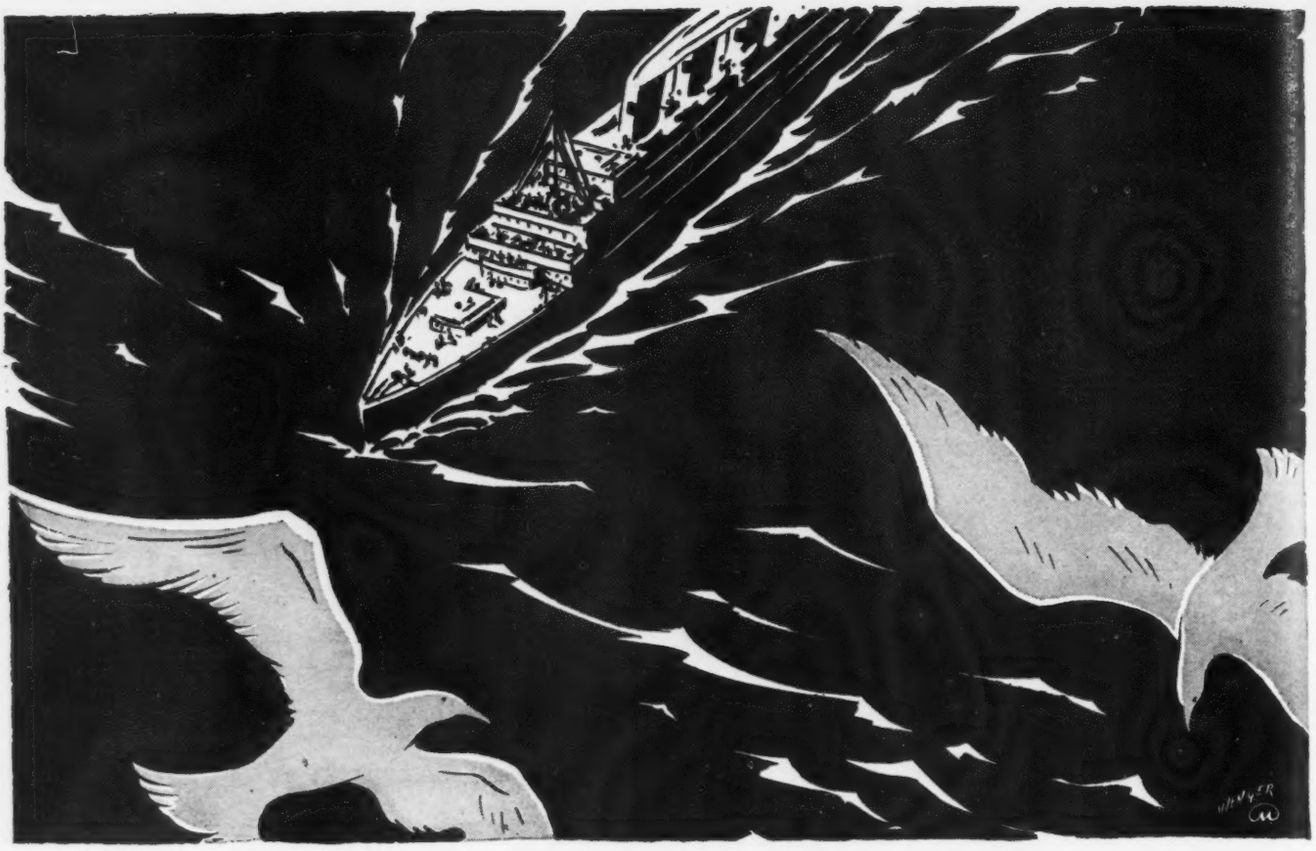

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Why the Tariff?

IF WE were asked to list in order of their importance the ways in which Congress could immediately and effectively help to relieve the present economic pressure, we believe we would place tariff action at the bottom of the list. And yet that was almost the very first issue to engage the attention of the new session.

This is not said in criticism of the Democratic party. Similarly unwise action has marked the return of the Republicans to power in the past. It is one of the weaknesses of the party form of government: possibly the price we have to pay for its many good features.

However, usually this tendency on the part of one group to ride its hobby horse at the first opportunity is merely irritating; just now it is dangerous. There is so much for Congress to do that the waste of a week, or even a day, is almost criminal.

▼

In the present instance, the question of high tariff vs. low tariff is not directly involved. Revision of rates is not suggested. Instead, the proposed bill deals with what might be called the technology of tariff-making.

To textile manufacturers, the most significant phase of this bill is its proposal to transfer to Congress the President's powers to adjust duties on the basis of the findings of the Tariff Commission.

While we are conscious of the controversial nature of all matters concerning tariffs, it is difficult for us to recognize the validity of arguments for this change. For years, it has been urged that tariff-making be taken "out of politics." Obviously, such extraction is difficult, if not impossible, in a democracy. But certainly it would seem advisable to minimize, wherever feasible, the part which politics plays in this issue. Equally certainly, we are not taking a step in that direction if we throw back into the political arena the supposedly scientific findings of a technical body created for that purpose.

▼

However, as indicated previously, the more serious consideration is the waste of time involved.

The part which world-tariffs have played in the world-wide depression is, again, controversial. But the argument that the existing American tariff is responsible for our present economic situation—and that, conversely, a change in tariff legislation will materially remedy that situation—is untenable.

Consequently we believe that manufacturers should suggest to legislators that they exert themselves further in vital matters as they did in the Reconstruction Finance Corporation case, and save political, rather than economic, issues for such leisure time as may be available at the end of the session.

The Week in Textiles

as Reflected in This Issue

General

Reveals Origin of Customs

An interesting and valuable collection of original source material bearing on the history of the textile industry is being made by the Baker Library of Harvard Business School. A collection of correspondence called the Kilburn-Lincoln Papers dating from 1825 to 1868 discloses the origin of piece rates in the old-time basis for contracting for machine building. *(page 20)*

Coordinated Selling a Necessity

Mergers will revive the lost art of making a profit in the textile industry, says Floyd W. Jefferson. He points out that at present uncoordinated selling is trying to hold its own against efficient cooperative buying. The buying groups are being injured by the very conditions they themselves developed. *(page 23)*

Year's Electrical Developments

A review of the year's electrical developments discloses that there are many which have been of direct benefit to the textile industry. Improved textile motors of various types, control instruments, and laboratory apparatus were outstanding. *(page 31)*

Shorter Work Day and Week

Adoption of a five-day week and a six-hour day is recommended by John A. McPherson, vice-president and chief engineer, of J. E. Sirrine & Co., Greenville, S. C., in a paper recently delivered before an engineering body, as a practical and effective means for creating and spreading work to a larger number of people. *(page 37)*

Index numbers for 1931

A full record for the 12 months of 1931 of TEXTILE WORLD cotton and wool index numbers is given. The low for each commodity was touched or equalled in December. Only colored cotton goods are above the 1914 basis in the cotton group, while all wool manufactures are somewhat above 1914 though raw wool is slightly below it. *(page 41)*

V-Belt Construction

Improvement in the construction of V-belts has resulted in more desirable running qualities. Two types, with their constructional details, are described and illustrated. *(page 42)*

Cotton

Producing Only on Order

Producing only against orders is the latest trend in the combed cotton yarn field. It is a most constructive move and holds hope for rehabilitation of this branch of the industry as well as acting as a guide post for others. *(page 22)*

Carder's Problems Discussed

Important problems relative to the carding department of cotton mills were discussed at a recent meeting of overseers of carding. Differences of opinion on the various topics lent interest and value to the discussion. Single-process picking, flat speeds in carding, and cork drawing rolls were among the subjects considered. *(page 24)*

Finishing Flannelette

A routine for duplicating the finish of a cotton flannelette is outlined. Cutting off or shortening the nap in the felter should be eliminated to secure the finish desired in this case. One light run through a wool calender is recommended. *(page 45)*

Cotton Shows Fair Gains

Raw cotton gained this week because of more optimistic reports from the Worth Street district coupled with a spurt in cloth trading. Southern selling of cotton held back the potential power of the upswing. *(page 51)*

Much More Yarn Inquiry

Cotton yarns attracted increased inquiry this week but business remained limited to relatively small and nearby lots. Despite the uptrend in cotton, buyers were loath to pay anything above recent bottom prices. *(page 51)*

A Spurt in Print Cloths

A more active print cloth market early this week put advances of $\frac{1}{8}$ to $\frac{3}{8}$c. into effect on the popular constructions. The vacuum in distributing circles was well evidenced in the early activity as spots and nearby goods actually became scarce. Some operators bought through June. *(page 55)*

Wool

Barathea Weave

An illustrated discussion deals with the construction and variations of the barathea weave. It appears that this term is being, or has been, used to apply to quite a wide range of fabrics. *(page 45)*

Wool Firm But Quiet

Raw wool remained firm though quiet this week. The material seems to be in strong hands since holders have spanned a fairly long period of sluggish buying. Although wool consumption last year was high, possibilities for 1932 are un-

The Textile Outlook

BUSINESS in textiles is beginning to spill over the dam of caution which has held it back for many weeks. Though large, uncovered needs are known to exist in the fields served by spindles, looms and knitting machines, it is still a matter of doubt how far the present movement is likely to go. Distributors are by no means in a mood to load up with goods and they will still work as closely hand-to-mouth as possible, but if the ultimate consumer exhibits absorbing powers during the next few months, there is strong likelihood that the first half of 1932 will show better results than the last half of 1931. Certainly the textile manufacturer must be very careful to follow demand with his production rate rather than attempt to lead it. The spurt in cotton goods this week is most encouraging, but should be taken in conjunction with the dead weeks of December to get the true picture. Low priced wool goods give promise of movement as the $22.50 suit stores cut prices to $17.50. Silk manufacturers were more hopeful this week but a fundamentally uncertain raw material market will act as a drag. The knit goods market tone is better; new season underwear is 8 to 12% below a year ago but hosiery is firm.

certain and a rising market at present seems unlikely. *(page 53)*

Yarns Awaiting Improvement

Worsted yarns appear to dealers to be on the verge of improvement. There was scattered inquiry from various trades each of which is expecting and preparing for spring sales. *(page 51)*

Worsteds "At a Price"

Drastic clearance of considerable low-level worsteds at unprofitable prices weakened this line, but quality worsteds are firm. *(page 55)*

Knitting

Costing System for F.-F. Mills

The application of a previously described cost-finding system in a typical hosiery mill is explained and illustrated. Treatment of direct labor, burden, and overhead are carefully outlined. A 4,000 doz. production for a four-week period is taken as the basis for figuring. *(page 32)*

Yarns for Women's Hose

Evenness of texture in hosiery is often secured by the use of two-ply yarns in their construction. French-spun yarns are recommended for this type of work. *(page 44)*

Underwear Prices Reduced

Reductions of 8-12½% in ribbed underwear prices for 1932 will be announced when new lines are shown Feb. 15; reductions are retroactive to current business. *(page 56)*

Mesh Hosiery in Good Demand

Mesh and other novelty full-fashioned hosiery proved a leading line in post-holiday business. *(page 56)*

Swimsuit Mills Curtail

Curtailment of production by bathing-suit mills promises to bring a stronger price tone to this market in February; demand is light. *(page 56)*

Cotton Goods Statistics for 1931

DECEMBER figures just released by the Association of Cotton Textile Merchants of New York make possible a summary of the cotton goods situation for the calendar year 1931. Sales during the year were about 4% in excess of production; shipments were approximately 2½% in excess of output; 1931 sales were 4% above those for 1930. Stocks at the end of the year were 20% less than at the beginning; unfilled orders increased 11½% during the same period. In other words, whereas stocks on Jan. 1 were 26% in excess of unfilled orders, the latter were 11% in excess of stocks on Dec. 31.

Which brings up the old question: Why did not the industry make money?

Details of the December report are published elsewhere in this issue.

Silk

White Lines in Silk Crepe

Faulty dyeing is blamed for the development of white streaks in a silk crepe. Irregular twist in the yarn will accentuate this condition when dyestuffs having poor fastness qualities are used. *(page 44)*

Soaking Japan Silk

A discussion of silk soaking includes such subjects as the amount of soft water necessary for soaking a bale of silk, temperature of the solution, and the functions of the various chemicals used. *(page 44)*

Silk Likely to Remain Weak

Raw silk prices are likely to continue weak, according to Dr. L. H. Haney writing in this week's TEXTILE WORLD Analyst. "As the spring outlook for silk textiles continues uncertain," he says, "and the visible supply of raw silk is very large, silk prices are likely to continue irregular and weak. New lows are easily possible. *(page 47)*

Silk Prices Up 5-10c.

A firmer tone sent silk prices up 5 to 10c. this week; broadsilk mills hold back, but hosiery manufacturers are buying into June. *(page 53)*

Good Thrown Silk Call

Increased call for thrown silk is noted in both hosiery and broadsilk fields, and outlook for yarn market has improved. Spun silk quiet. *(page 53)*

Pure Dye Crepes Selling

Broadsilk mills enjoy good demand for pure dye crepes; print prices are weaker and buying is uneven. *(page 55)*

Rayon

Weavers Buy Rayon

Good movement of rayon flat crepes has spurred demand for 100 and 150 denier dull luster rayon and some plants have had to increase output. *(page 53)*

Processing

Substantivities of Dyes

In continuous dyeing, absorption data are a necessity. A laboratory machine, based upon the skin-friction principle, for determining the substantivity of dyes has been developed; and its action is described. *(page 28)*

Cloth-Shrinking Machine

Announcement is made of the development of a machine for shrinking fabrics which can best be treated without the application of tension. Several possible variations of this machine render it applicable to a wide range of fabrics. Slow, natural drying is secured while the cloth is held in the form of loose festoons. *(page 42)*

Emulsifying Agents

Two new products which may be used as emulsifying agents are described. They are produced by the esterification of poly-alkyl glycols with oleic and stearic acids. *(page 42)*

Removing Oil Spots

A procedure for removing black oil spots in draperies on which ether and benzine have failed is recommended. *(page 44)*

The Business Outlook

THE year has started with considerably more snap than was expected, though less than in '30 and '31. First full week's records do not indicate any definite turn in industrial and business activity, but they show some response to seasonal stimulus in steel and the cotton trade, and at least resistance to further recession in almost all lines. Commodity prices continue encouragingly steady. Active interest in the auto show has aroused more optimistic estimates of spring output. Power production, carloadings, construction projects are still slack. The first half of January has been distinguished chiefly by pronounced improvement in securities markets, principally in rails and especially in bond prices. Some of this is usual at the season, but most of it is undoubtedly due to improvement in railroad prospects, high hopes of early relief from banking strain through the Reconstructon Finance Corp. and recent expectations of rigorous reversal of passive Federal Reserve policy in face of destructive deflation. Moves toward easier money rates in the New York market have stimulated speculation on the possibility that the Reserve banks will embark on aggressive open-market operations. ***The Business Week.***

Origin of Piece Work *Revealed in Early Loom Building*

By Jonathan Thayer Lincoln

◆ *A valuable collection of source material relating to the textile industry is being made by the Baker Library at the Harvard Business School. Recent additions to this collection relate to the beginnings of the textile machine industry and include the records of the old Lowell Machine Shop, deposited by the Saco-Lowell Shops, the early records of the Davis & Furber Machine Co. and the Kilburn-Lincoln Papers, a collection of correspondence and other documents dating from 1825 to 1868. A few of the documents among the Kilburn-Lincoln papers are quoted in the following article. In addition to affording evidence of the origin of piece-rates the original system of job work outlined in this article has another textile parallel in the still current custom of having the cotton mule spinner pay for his own helpers.*
—Editor.

WHEN, in 1915, Kilburn Lincoln & Co. passed from family control and was incorporated as Kilburn Lincoln Machine Co., a firm of efficiency experts was employed. It was assumed that, during 70 years of management passed down from father to son through three generations, practices had crystallized into traditions seriously at odds with the principles of scientific management, and that these traditions should be promptly uprooted.

The particular tradition which confounded the efficiency man was a system of job work by which a machinist of notable skill was paid a piece price for performing the operations on loom parts, hired his own help—their pay being deducted from his job—and had assigned to his exclusive use definite machine tools conveniently grouped for his purpose.

Historically the system appears to be the forerunner, in this country, of piece work, and for that reason its origin is important. It may be traced back to the very beginnings of loom building in the United States.

In 1823, the owners of the water power in that part of Smithfield, R. I., which, in the following year, was to become known as Central Falls, had their property plotted and divided into six separate water privileges apportioned to the owners according to their holdings. On privilege No. 2 a factory was erected by David Jenks and others, and the papers before us relate to the building of power looms for this mill. The agreements are between David Jenks & Co., owners of the mill, and Jonathan T. Lincoln, a young machinist then in the employ of David Wilkinson at Pawtucket, R. I.

The first of these agreements follows:

> Agreement for a job of work made this twenty-eighth day of April 1826 between David Jenks & Co. on the one part and Jonathan T. Lincoln on the other part the said Lincoln agrees to do the iron work for twenty-four power Looms at fifteen dollars for each Loom—the Looms to be finished in the same form and style as those which Otis Wolcott is now building at Valley Falls —the Gudgeons for the Cloth & Yarn Beam & the Back Roller are not included in the Job—said Lincoln is to employ one hand besides himself & the said David & Co. agree to furnish said Lincoln with shop room & tools to do said work and that the said Lincoln shall not be hindered for want of Stock for himself and one hand—said Lincoln is to keep his tools in repair.
>
> DAVID JENKS & CO.
> JONATHAN T. LINCOLN

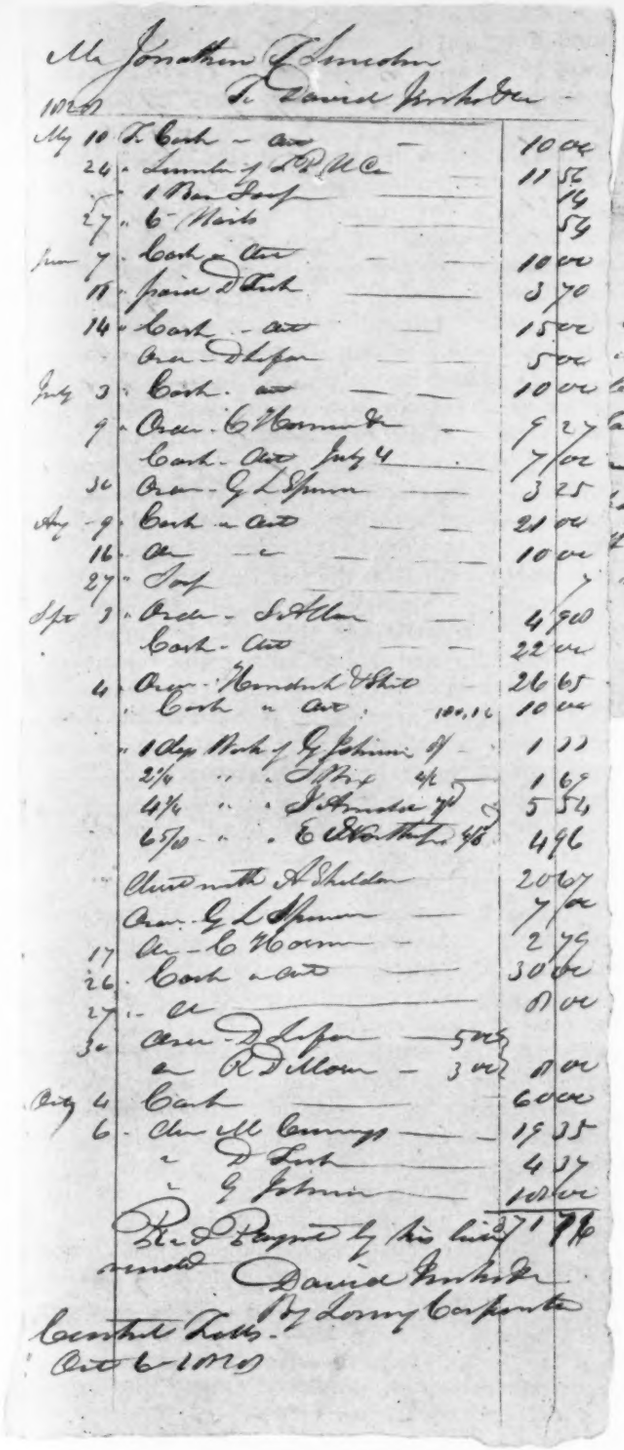
By this agreement it appears that Lincoln was to perform the work of machining the iron parts of the loom, all the wood-work being otherwise provided.

The second agreement, dated May 3, 1827, is similar in form and refers to building 24 additional looms. It differs from the first in that Lincoln agrees not only to do the iron work but all the turning of the wood work, and all looms are "to be finished in the same form and style as the last 24 which sd Lincoln made for sd David & Co. and the said David & Co. agree to pay the sd Lincoln for doing the said work sixteen dollars and fifty cents for each loom." Lincoln is also to employ a sufficient number of hands to complete the job by Aug. 15. He is to have as convenient a place to set up his looms as he had for the last he built. The third agreement made July 8, 1827, is for 24 looms and is identical with the second except that there is no time limit and Lincoln is to employ two hands besides himself. The last agreement in the series, dated Oct. 6, 1827, calls for 20 looms and is similar to the previous one except that Lincoln agrees to employ a sufficient number of hands to complete the job by March 1, and in case the looms should be required sooner than that date he is to employ a larger number of hands.

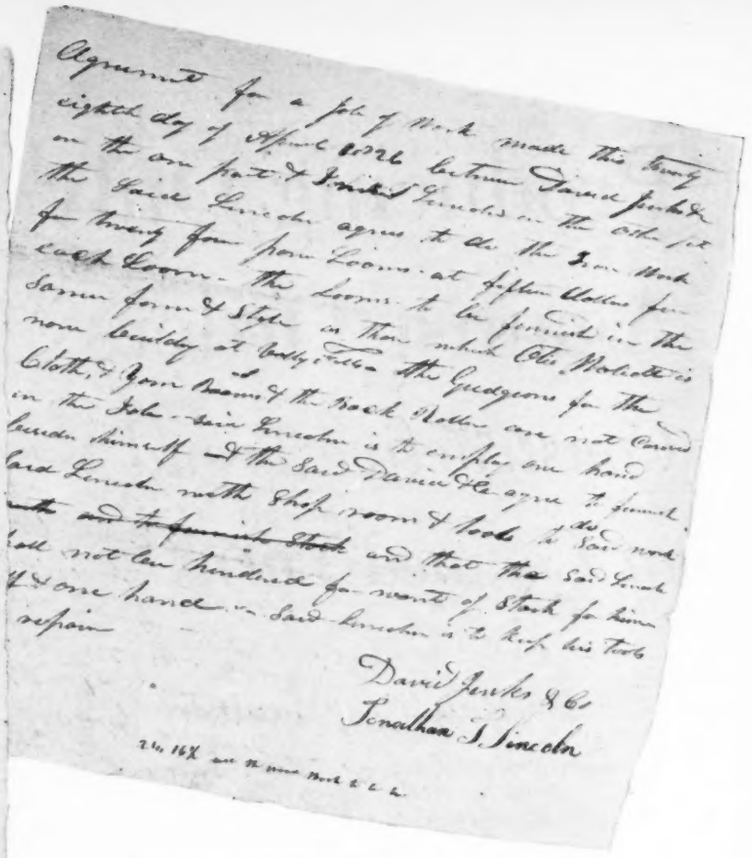
There is still another agreement made in the following year which refers to work other than loom building, but which contains additional information concerning the methods of employing machinists by the cotton mills in the period of beginnings. This document follows:

> Agreement between David Jenks & Co. on the one part and Jonathan T. Lincoln on the other part.
>
> Said Lincoln agrees to turn and finish eight hundred Throstle Spindles with whirrs—whirrs to be put on the spindles in a workmanlike manner at twenty two cents for each spindle—the said David & Co. agrees to furnish two Engines (engine lathes) and to pay the sd. Lincoln the above named price for doing the work as above described. Sd. Lincoln to keep his tools in repair —Sd David & Co. will forge what tools are necessary for doing the job. May 14, 1828

The relation of the manner in which the 92 looms referred to in the agreements were built and the system of job work which the efficiency experts found firmly established in the plant of Kilburn Lincoln & Co. as late as 1915 is clear. An account book kept for Lincoln on a job of looms made by him for Andrew Robeson & Sons in Fall River in 1846 indicates how the system of job work was adopted by E. C. Kilburn & Co., in which firm Lincoln was a partner. This job, which comprised the building of 188 looms, was begun in December, 1845, before Lincoln became connected with the firm, but it



Bill rendered Lincoln by Jenks while work was going on, 1828



Original agreement referred to in this story between David Jenks & Co. and the author's grandfather

was continued throughout the year 1846, the first year of the partnership, and while it does not appear that E. C. Kilburn & Co. shared in the profits derived from the job—as the gain of $424.62 was divided between Lincoln and another Fall River machinist, Edwin Chace—the fact that Lincoln was building looms by the job after the formation of the firm would indicate a very natural reason for the adoption of the job system by the company when building subsequent orders. That the system became common is shown by the records of other textile machine companies.

The agreements between Lincoln and David Jenks & Co. are interesting from another angle. Power looms were first introduced into this country at Waltham, Mass., in 1814, by Francis Cabot Lowell and this incident has been described by Nathan Appleton, an associate of Lowell's in the venture. Two years later, William Gilmore, a Scotch mechanic, was employed by the Lyman Mill in North Providence, R. I., to build twelve looms, and also machinery for warping and dressing. The looms were put in operation early in 1817. This was the first introduction of the crank loom in this country and it supplanted, in a relatively short time, the loom built for the Waltham Mill and later introduced in Lowell and in other mills in northern Massachusetts and New Hampshire.

When, in 1817, Gilmore made the first twelve looms for the Lyman Mill, he allowed David Wilkinson to make twelve other looms for the same company on the payment of a small royalty. This arrangement was extended to the building of looms for other Rhode Island mills. Lincoln was in the employ of Wilkinson when he built the looms for David Jenks & Co. and later carried over into his own business the Gilmore traditions. Indeed the records show that at different times prior to 1850 his firm built more than 100 looms for the Lyman Mill, which was originally equipped by Gilmore himself.

In the early history of power weaving in the United States, three names stand out above the others: Francis Cabot Lowell, who in 1814 designed the first power loom to be successfully operated under factory conditions; William Gilmore, who at almost the same time introduced the crank loom; and William Crompton, who, at a somewhat later period, 1839-1840, built the first loom for fancy weaving. It is greatly to be desired that every fragment of material relating to these inventors and their work should be preserved to supplement the collection now being made at Harvard University.

Producing Only Against Orders

Constructive Trend in Combed Yarns

By Ralph C. Maultsby

Southern Editor, TEXTILE WORLD

THE policy of producing yarns only against actual specifications, which was recently announced by officials of Textiles, Inc., has been praised by other manufacturers as generating a constructive influence in the combed yarn market. Indications are that other producers of combed yarns in the Gaston County area have determined to follow the same policy and, by doing so, to avoid the unhappy consequences of piling up large stocks of unsold yarns which have always disturbed the price structure in the past.

Reliable figures reveal that more than 900,000 combed sales yarn spindles in the Carolinas are now being operated on the basis of a 55-hour week, with night shifts entirely eliminated. The present rate of production in plants of the Gastonia area is computed to be at an average of about 36 hours per week, or about 65% of the single daylight shift. According to an announcement by J. H. Separk, executive vice-president of Textiles, Inc., 18 of the 21 plants owned by his company are now running full time on the single shift basis. Some mills, of course, continue to operate day and night shifts; however, taking each plant at its maximum normal schedule, last week's figures showed production of combed yarns in reporting mills at 49% of normal.

Prices of combed yarns, although displaying some firmness since the first of January, are far from satisfactory to the spinner. The wave of price cutting on mercerized cones which was rampant in November and early December has about subsided with the present level around 50c. for 60s-2, ungassed yarn. At one time, according to information generally known in the market, large quantities of mercerized cones were sold on the basis of 45c. for 60s-2.

Such low prices for mercerized qualities naturally were felt by the gray yarn spinners in the buying pressure from processors. Spinners' margins had dwindled steadily for several months and the recent acute price situation only placed them in a more unfavorable position. The spread between raw cotton, New York spot quotations, and the market price of 60s-2 mercerizing twist ball warps, as reported in TEXTILE WORLD, has narrowed during the last two years, as shown in the accompanying table.

The shrinkage of more than 15c. in the margin between raw cotton and combed yarn prices in a two-year period can be only partially offset by manufacturing and selling economies that have been effected during the period covered by the above table. The more up-to-date mills have taken steps to improve efficiency in the plant and to reduce production costs at every possible point. The net result has been that obsolete and inefficiently operated plants have been hard-pressed to meet the prices which competition could afford to take as an even break. Consequently, many yarn manufacturers, at their wits' end, have resorted to wage reductions beyond all reason in an effort to stay in business.

Some of the smaller mills, with old and poorly arranged equipment, have reduced wages as many as four and five times in the last two years. Wage levels in such mills are now below the $10 average, based on a full 55-hour week, and there has developed a feeling of resentment and unrest among the operatives who insist that they are receiving only a "starvation wage." This feeling of resentment is particularly evident in cases where neighboring mills, operated by more intelligent manufacturers, have reduced wages only 10 to 15% during the two-year period.

Textile workers of Gaston County, because of bitter experiences with union organizers in the Loray and Bessemer City strikes, are opposed to strikes but want to arrange an amicable readjustment of wage scales in mills where extremely low rates are now paid. The majority of combed yarn manufacturers in Gaston County, who have resorted to moderate wage reductions, the total decrease ranging from 10% to 20% in most cases, are apprehensive of the consequences that may develop from the unwise wage policies of the minority.

The more intelligent approach to the problem of wage adjustments is exemplified in the policy followed by one large Gastonia mill. All operatives were called together and the management explained the unusual shrinkage of manufacturing margins that has taken place during the general economic depression. The employees were shown why labor might be reasonably expected to share in this decreased income. With this foundation laid, a wage adjustment averaging less than 8% was inaugurated without difficulty and, apparently, no dissatisfaction has developed among the workers of this mill since the reduction went into effect.

Spread Between Raw Cotton and Price of Mercerized Yarn in Cents

	Raw Cotton New York Spots	60s-2 Warps Mercerized Twist	Margin
Jan. 3, 1930	17.30	65.50	48.20
Apr. 4, 1930	16.60	63.00	46.40
July 7, 1930	13.30	59.50	46.20
Oct. 3, 1930	10.50	55.50	45.00
Jan. 2, 1931	10.15	55.00	44.85
Apr. 2, 1931	10.50	52.00	41.50
July 1, 1931	10.15	50.00	39.85
Oct. 1, 1931	5.80	42.00	36.20
Jan. 4, 1932	6.25	39.00	32.75

Mergers Will Revive Lost Art of Making a Profit

By Floyd W. Jefferson

Of Iselin-Jefferson Co., New York

◆ *The possibility of mergers in the textile field was discussed by Mr. Jefferson in the December issue of the "Converters' Yard Stick," published by the Textile Converters' Association. The article, in part, is reprinted below, with the courteous permission of that association. Incidentally, Mr. Jefferson's deductions regarding the potential significance of a recent centralization of factoring interests are similar to the views expressed editorially in* TEXTILE WORLD. *This is particularly interesting since the two observations were prepared independently of each other.*—Editor.

THROUGH the orderly procession of mill, commission house, broker, converter, finisher, wholesaler, cutter and retailer, cotton products were accustomed to move into consumption with adequate profits to those factors which efficiently performed their functions.

Let us review some of the extraordinary developments of the last two decades, as the old order changed:

Mills consigned goods to converters who acted as commission agents; other mills set up their own selling organizations and converted and sold goods in the finished state.

Commission houses entered the field of converting, usually inadequately equipped for styling and selling.

Brokers made affiliations with finishing plants and sold finished merchandise.

Converters sought mills that would consign cloth to be sold finished for mill account.

Finishers made affiliations with brokers, converters and commission houses, and at times bought merchandise which they finished and sold at little or no profit, looking to the price of finishing and the gain to compensate them for their additional risk.

Cutters became converters, wholesalers bought gray goods and finished them, and sometimes established factories to make up garments, and in other instances, wholesalers ceased to function except as glorified warehouses.

Retailers sought to buy their goods direct from first hands and banded together in well organized groups to give more effectiveness to their purchasing power.

Every one of the original factors encroached in some way upon the province of the other until we have arrived at the present confused state of uncoordinated selling, attempting to hold its own with efficient cooperative buying.

It has been an unequal strugle but the buying groups, in their greed, have created a Frankenstein, and have all but been destroyed by the unstabilized market in the creation of which they have played no small part.

Many of these changes possess the elements of economic soundness and it is certain that a shortening of the road, and a contraction of profits between primary source and consumer, are policies that have come to stay.

Nevertheless, the changing order has made for confusion, and there is still doubt as to which form of merger and affiliation may be the best adapted to present conditions.

One thing seems to be certain and that is the fact that capitalistic control is the only influence which can regulate production and distribution policies. All attempts at trade agreements within the bounds of the Sherman Law have proven ineffective. The establishment of large centralized units, soundly financed, and the elimination of the small distributor has been the order of the day, and while this has worked a tremendous hardship on the few, it is probably the travail through which the industry must pass before the birth of the new day . . .

In January, 1928, mills within the group, reporting statistics to the Association of Cotton Textile Merchants, showed a stock of 54,000,000 yd. on hand in excess of orders. At the end of October, 1931, this group showed orders in excess of stock amounting to 89,000,000 yd. It seems inconceivable that an industry having in hand orders for 89,000,000 yd. more than stock, and realizing that the stock itself is a fixed quantity which will always remain in existence, must suffer from the phobia of potential overproduction, and indulge in an orgy of panic and unwarranted price cutting.

One of the causes is the unsound structure of cotton mill financing. Many cotton mills were built with money furnished by the machinery people and selling agencies. Years ago the mills themselves and all factors connected with them were able to make large profits. The days of shrinking margins came coincidently with the days of over-expansion. Southern mill executives looked to the big Eastern banks or to their commission houses to provide the funds. The policy was carried too far, and, when credits were contracted, the mills suffered.

A most helpful factor in cotton textiles would be a super-finance corporation that would relieve the banks and the distributing agencies of the burden of financing mill properties.

At the moment, the pendulum has swung too far in the wrong direction and too little value is given in financial circles to the splendid manufacturing establishments which have been built at tremendous cost.

Modern banking gives little or no value to plants that are essential and that will again prove to be big money earners when the changed order has brought business stabilization.

Factoring Merger Significant

There has been significant news in the papers recently relative to the absorption by a large finance company of important factoring interests.

While this commercial banking corporation does not actually control the mills which it factors, it is nevertheless true that it wields a tremendous influence over the policies of the manufacturers with which it is affiliated. It is possible that this may mark the entrance into cotton textiles of the type of financial and capitalistic control which alone can dictate, and regulate policies of production and consumption. *(Continued on page 36)*

Overseers Discuss Cotton Picking, Carding, Drawing, and Roving

AT THE first meeting this season of the textile forum of the National Association of Cotton Manufacturers, held in Boston, Nov. 12, a representative group of carding overseers held an interesting discussion of the various problems which they encounter from day to day.

Single-Process Picking

The first topic presented for discussion had to do with the question of whether or not mills spinning counts as fine as 60s to 100s could get even work from single-process picking. Before the question was answered, however, one member pointed out that there might be some difference of opinion as to what was considered to be even work. He declared that a coarse-goods mill might consider 7 to 8% variation in the yarn number as acceptable work, while on fine yarn a variation of only 4 or 5% would be allowed. In reply to this the opinion was expressed that coarse work should be just as even in proportion as fine work.

One carder stated that while he had had no experience on fine work, on 40s he found that the evenness was as good if not better than that secured by the use of two-process picking. Changing of gears, he stated, had been greatly reduced since the installation of the single-process system. He further pointed out that he was maintaining a policy of allowing for humidity on the laps and that he believed that this had as great an effect upon evenness as did the picker itself. His machine employed modern electric control, using four feeders in the back to a single apron, the cotton going through two vertical openers into a No. 12 machine. From this the stock was conveyed to a finisher picker having a hopper and two beaters.

Disposal of Uneven Laps

"I would like to ask anyone who has one-process picking," said one carder, "what they do with uneven laps. How do they run them out?" Two members replied to this inquiry, one stating that he had practically no trouble with uneven laps, but that when they did occur, it was usually in the early morning. He stated that he took the uneven lap and wound it back, gradually feeding it into the opener again. Although this involves a second trip through the vertical openers, he claimed that no injury was done to the cotton. The other carder stated that for the few laps that were returned he had built a very short apron on the back of the hopper, feeding the material back into the hopper by means of this. The short apron, he stated, is about 18 in. long and is geared with the rest of the hopper.

In discussing the effect of using one-process picking in a blanket mill where it is necessary to shift from one color to another in small batches, one speaker stated that he had run a good deal of colored work and that, in order to control it, he had watched the position on the cone belt carefully. If he were running a couple of hundred pounds, he stated that he would run a lap through until he had enough cotton in the hopper to get the belt up to about the center of the cone. He said that he had had good results in that way and that on some days he would probably run fifteen or twenty different colors through the same one-process picker. The opinion was expressed that considerable time might be lost by this system, but he replied that about 10 min. is required to shift from one color to another, this time allowing for the previous color to be cleaned out of the machine. He pointed out that there would probably be 3 or 4 yd. left on the tail end of a lot and that the apron would speed up and take care of the weight to within 2 or 3 yd. The last end would be put in the waste or in another batch of the same color.

What was considered to be a slightly different hook-up from that used in most single-process systems was described by one speaker. A Kitson opener, hopper feeder, 40-in. Buckley, and a blade beater were connected up with a double-hopper feed. He stated that in his plant the stock was fed from the bins downstairs to a hopper feed, feeding through a Buckley and being conveyed to the upper floor, where it was dropped into the hopper. Both for cleanliness and evenness it was declared that the results obtained exceeded those secured by use of the old system. He expressed the opinion that

Evenness Test of Single-Process Picker Work

Sak—44-Lb. Lap.		Weight Per Yard 12 Oz. Per Yard	
43–12	43–12	12¼	11⅞
43–10	44– 0	11⅞	12
43–10	44– 0	12	11⅞
43–11	44– 0	11⅞	12
43–12	43–12	11⅞	12
43–12	44– 0	11¾	11⅞
Change Evener		12	11⅝
	43–12	11⅝	12
44– 0	43–12	12¼	11⅝
44– 2	44– 0	11⅞	12
44– 0	43–13	12¼	11⅞
44– 2	44– 1	12⅛	11⅝
44– 4	44– 0	11⅝	12
44– 4	43–12	12⅜	
44– 7	43–14	11⅝	
Change Evener		11⅞	
	44– 2	12	Two other tests showed just about the same results
44– 0	44– 2	11⅞	
44– 0	We were making 8 laps per hour, but this is full production	11⅞	
44– 0		11⅝	
44– 4		11⅞	
44– 4		¼ oz. variation from standard	
43– 8		¼ oz. from heavy to light yard	
43–12			
44– 0			
44– 2	No rejections		
43– 9			
44– 3			

the double-hopper fed the cotton in such a manner that evenness of feed through the evening motion was much improved. On the previous day, he stated, he had made 63 laps without finding it necessary to reject any.

In the table presented herewith are shown the results of tests made by one carder on a made-over one-process picker. Production was full, as the machine was kept running all the time. Another member substantiated these tests as being similar to his.

Cleaning Action Compared

The next topic for discussion was designed to bring out opinions as to whether or not the single-process system of picking cleaned the cotton as well as the two-process system. In running a 33-lb. lap, one member stated that in 300 laps a day he did not believe that more than three or four were turned back. He said that good clean work was being obtained.

The opinion was expressed by another carder that there are certain factors which affect the cleanliness of the cotton whether or not the single-process system is used. These factors he outlined as the number of feeders employed, the amount of grid surface, the fan speed, and the speed at which the cotton goes through the machine.

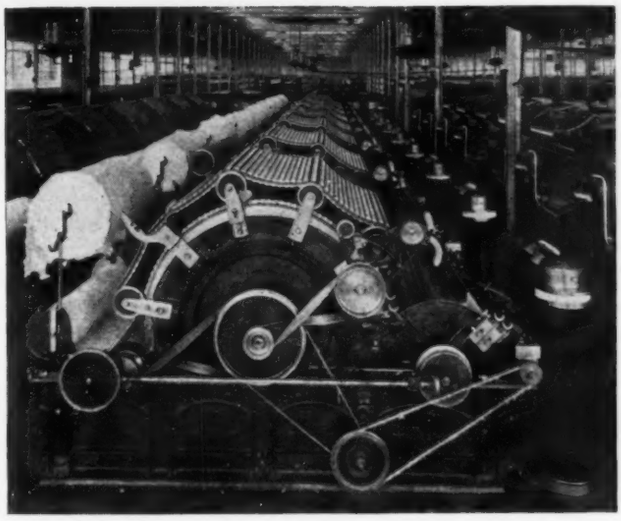
"Of all members present who have one-process picking," stated the chairman, "probably no two of us would have similar opinions. The preparation work, the beaters it goes through, and the fan speeds all have something to do with the cleanliness of the picking. If you are going to make one-process picking as cheap as possible, backing a finisher up to an ordinary Buckley beater, you are not in my estimation going to obtain clean work."

The question was raised as to whether or not anyone present who was using one-process picking had ever done away with the draft between the two feed rolls that feed into the hopper. One member replied that in the mill in which he worked, a man had caught and badly injured his hand in that place when starting the cotton. As there was no chance to put a guard in this position, the feed rolls were taken out and the cotton was allowed to slide over. It was stated that the machine had worked out just as well without them. The objection was raised that this procedure might eliminate the possibility of any further blending at this point, but it was pointed out that blending should have been completed before the stock reached the picker.

The use of the control apron in the middle of the picker was questioned by one carder, who asked whether or not it would not be as well to eliminate the feeder and run straight through. In reply to this one speaker stated that this device was the whole heart of the one-process picking system. Without the intermediate hopper, he stated, the machine is no better than two pickers put together. The purpose of this is to control the weight of cotton being delivered from the breaker section. The question as to why the machines could not be hitched directly together with an evener attached to the breaker was answered by the statement of one member who declared that this type of evener was not so sensitive as that which had been applied to the one-process picking system.

Beater Speeds

A discussion of the proper number of blows per inch to give different lengths of cotton led to an expression of some differences of opinion. On $1\frac{1}{4}$ and $1\frac{5}{16}$-in. cotton



If flats are speeded to improve cleanliness, settings should be regulated to conform to the amount of waste it is desired to remove

two members specified 27 or 28 blows per inch on the breaker section and 35 blows per inch on the finisher section. On the other hand, one carder stated that on $1\frac{1}{16}$-in. cotton he had been using from 45 to 50 blows per inch, and that no injury to the cotton was noticeable. Blade beaters, it appeared, produced a cleaner cotton but gave a lower yarn breaking strength than the Buckley type.

One member believed that better results would be obtained if speeds were based upon blows per staple rather than blows per inch. He pointed out that if 20 blows per inch were given to 1-in. cotton and a change were made to $1\frac{1}{2}$-in. cotton the latter would receive 30 blows per staple.

Apparently it was not found necessary to make beater speeds higher in one-process picking than in the old system. However, one member complained of having considerable trouble with back draft. He stated that he had not seen a mill properly designed to take care of the draft conditions of the picker room and that the installation of single-process pickers with their additional number of fans had made this condition more prevalent. Because of these exhaust conditions, he pointed out, it was often necessary to lower the fan speeds and increase the beater speeds. While the dust hole is often large enough, he stated, the chimney is frequently too small.

The next question concerned the weight per yard of picker lap best suited for a mill making from 40s to 60s warp and from 70s to 100s filling. All speakers who expressed their opinion on this subject agreed that a 12 oz. lap would be suitable for counts ranging from 40s to 100s. In connection with this it was generally agreed that the same stock would appear dirtier when made into fine counts than in coarse counts.

Card Draft

The first topic of discussion relative to carding itself concerned the maximum draft obtainable on a card and the effect of increased drafting on the quality of the work. Drafts reported as practical ranged from 100 to 125, and one carder stated that he had been running a test with a draft of 140. The latter remarked that at the end of the month he did not believe there had been a difference in the average break of over 1%.

The discussion then turned to an expression of opinion

on licker-in speeds and type of licker-in wire. Speeds were found to range from 350 to 460, the general belief, however, being that the standard specified speeds for licker-ins were quite satisfactory.

"It seems to me that the most important thing about carding is to present as light a film as possible to your cylinder," stated one overseer. He pointed out that there are several ways in which this may be varied—changing drafts, changing speeds, etc. The quality of the work, he insisted,—considering that the card is in good condition—depends upon the lightness of the film on the cylinder. One member expressed the opinion that the licker-in was used merely to transfer the stock from the feed rolls to the cylinder; but another declared that it was his idea that the licker-in should remove the heaviest part of the dirt, giving the flats a chance to take out the lighter dirt. One speaker went so far as to say that having a good sharp licker-in is the best way to get good carding. This man was in favor of a long draft on dirty cotton and a shorter draft on clean cotton.

Hardened-point licker-in wire seemed to be favored over the regular soft wire by those members who expressed their opinion on the subject. It appeared that the main disadvantage of this type of wire lay in the fact that, if it were broken, it would roll and get into the cylinder, where it would break the wire. The advantage of having a constantly sharp point, however, was considered to offset this disadvantage.

Speeds of Flats

The discussion then turned to a consideration of the speeds of the flats. A speed of 3 in. per minute seemed to be giving satisfactory results in one mill; but one member reported that by changing his speed from $3\frac{1}{16}$ to $4\frac{1}{4}$ per minute, he found a noticeable improvement in cleanliness. One carder, however, declared that the results obtained from changing the speed of the flats in regard to cleanliness were often offset by the amount of waste made. In this connection, the setting of the flat to the cylinder was considered very important. A series of tests conducted by one overseer led him to believe that increasing the speeds of flats and arranging the settings so that the same percentage of flat strips would be obtained as with the slower speeds would result in cleaner and better work. A method of determining the amount of flat strips that are being taken out was described by one speaker. After resetting has taken place, the card is run for $\frac{1}{2}$ hr.; the boss grinder then takes ten strips from the card and weighs them. In this case a 16-grain strip was being taken, and the purpose of the test was to check up and see if the setting was right.

A trend toward removing a higher percentage of flat strips was indicated by the statements of several members, who declared that the value of this procedure would be realized in the spinning operation. As high as 5% was being removed in several instances.

How much humidity should be maintained around the card and the effect of excessive humidity on the appearance of the web were the next questions discussed. Humidity of from 35 to 40% was advocated by one speaker, who also claimed that at about 45% considerable difficulty would be encountered in the form of damage to the card wire and unevenness in the web. It was pointed out that the card room should be carefully partitioned off from the rest of the rooms, if satisfactory conditions of relative humidity are to be maintained.

Humidity at the speeders was generally accepted to be advantageous, but one member declared that it was possible to get so much humidity that it would soften the wax inside the flyers. This condition, it was pointed out, would give no end of bunches and would make it difficult to keep the flyer clean.

Grinding

The statement of one member that grinding a card every week for 15 min. might give better results than grinding for 4 or 5 hr. every twenty days or four weeks brought out the reply that little or no benefit could be accrued in this short time.

One member held out in favor of grinding the flats with a traverse roll rather than with a dead roll or a drum grinder. He claimed that a true flat was obtained in this manner and that this could not be obtained with a dead roll because of the sag in the middle. This opinion was substantiated by another speaker, who declared that the effect of side pressing gives a better point and results in better carding. On the other hand, satisfactory results had been obtained by one member who is using a perfectly true dead roll.

Drawing Rolls

The subject of drawing rolls led to a discussion of the relative merits of cork and leather rolls. Most of the members who expressed their opinion on this subject agreed that, in order to get good results, it is necessary to varnish cork drawing rolls. The purpose of this is to prevent licking up. One member declared that he had developed a varnish of his own which had given excellent results, although that applied by the manufacturer had been rather unsatisfactory. It was declared to be a hard-setting varnish, and one carder expressed the opinion that this might involve a loss of cushion. On speeders, varnish was deemed unnecessary, but it was recommended that a fine-grain cork should be used.

"One trouble that we have found with cork rolls is that they are so soft and spongy," stated one speaker, "that, although they give us a good draft, they are apt to develop an indentation if left with the weights on over the week-end. It takes two or three hours to remove this indentation, and bad work is being made in the meantime." The chairman stated the belief that this trouble is also encountered on leather rolls, and another member pointed out that this factor is dependent upon the type of cork rolls which are purchased. Rolls with a harder cushion may be obtained, he stated; and added that he has remedied his difficulty in this way.

"One of the outstanding things about a cork roll that I think is most valuable," said one carder, "is that you get a truer roll." He further stated that his experience showed that the rolls did not pick up short fibers and that good wear was obtained. It was generally conceded that cork rolls are still more or less in the experimental stage and that considerable improvements may be looked for in the future.

The next discussion dealt with the question of what was the best rule for setting steel rolls on drawing frames. The first opinion expressed on this subject was that the setting of the back-rolls might be as wide as possibly could be obtained, and yet there would be no detrimental effect upon the stock. This was substantiated by statements of other members, who said that the draft between the back and third rolls is such that it would be practically impossible to make any uneven work at this point. On light slivers, a setting of $\frac{1}{16}$ in. over

the staple between front and second rolls was recommended by one speaker; but it was generally conceded that, where a heavier sliver is used, $\frac{1}{8}$ in. or even more over staples is satisfactory. Setting $\frac{1}{16}$ in. over staple is based upon staple of cotton at the drawing frame.

In regard to size of roll, one member expressed the opinion that the use of $1\frac{3}{8}$-in. rolls provides more latitude in handling staples. This speaker stated that he can shift from 1- to $1\frac{1}{4}$-in. or from $1\frac{1}{16}$- to $1\frac{1}{4}$-in cotton without shifting the roll setting because he is using the larger-diameter roll.

A discussion on the subject of weighting drawing rolls led to the expression of considerable difference of opinion. The group seemed to be rather evenly divided as to whether the front roll or the back roll should receive the most weight; but as both sides seemed to have good arguments and as the actual difference in weight was rather slight, no conclusion was reached.

The majority of those who took part in the discussion of the advantages of two lines of drawing over one line seemed to believe that the multiple system would result in more even work, although one member declared that tests he had conducted on one-, two-, three-, four- and five-process work indicated that the single process gave better results than any of the others.

The next question was as follows: "What break draft will give best results?" This, of course, referred to the draft between the back and middle rolls. Two members stated that, whereas the standard draft on American frames is 1.08, they have used drafts of 1.2 and 1.5 respectively with good results. It was pointed out that the use of a longer break draft makes it possible to run a higher total draft on the frame with equally good results. The impracticability of using a draft of this type of self-weighted rolls was acknowledged. One speaker urged that machinery manufacturers be asked to supply an easy method to change the back draft on frames.

Twist Multipliers

Twist multipliers, it was stated by one member, vary a great deal with the cotton that is being run. From what he has seen of the new crop of cotton, he feels very sure that the twist multipliers could be dropped lower than those used on the cotton of last year. The standard twist multipliers, as found in textbooks, were acknowledged to be a good guide; but it was stated that local conditions and the grade of the cotton would cause some variance from these standards. If twists are to be lowered, it was pointed out, care should be taken that the skewers are sharp; because if they are blunt, the rovings will break back. For this reason it was deemed advisable by one member to increase the twist slightly and use a little wider spread on the roll.

The subject of cleaning roving frames brought out the fact that one member had just started having a special girl clean the frames rather than having the frame tender do this work. These specialized cleaners maintain a regular schedule of cleaning and oiling, but the roller beam is cleaned at the time of doffing by the frame tender. Specialized cleaning in one form or another was deemed to be an efficient method of maintaining good operating conditions. In one case, a special girl was employed to clean the rolls and wipe the flyers; but the frame tender was required to do the creeling and end piecing.

Specialized doffing on roving frames was described by one speaker as being a decided advantage. Production was said to be appreciably increased. In a system of this nature, it was said to be advisable to have a boss doffer to whom the others are responsible. One carder, however, said that because of the difficulty of scheduling doffing time, he has found specialized doffing to be inadvisable. A fast worker, doffing a 160-spindle frame, could complete the job from the time of stopping to starting in about 21 minutes.

The carders' forum closed with a discussion of the proper degree of humidity to have in the vicinity of roving frames. Opinions on this subject vary from 55 to 60%. A relative humidity of 55% is being used successfully by one man, who also stated that this condition was maintained over the entire carding-room area and that no bad effects have been noticed on the cards.

◆

Earl Constantine Chosen Director of Hosiery Body

EARL CONSTANTINE, widely known executive and financial advisor, was elected managing director of the National Association of Hosiery and Underwear Manufacturers, at a meeting of the board of directors of that organization held Tuesday at the New York offices. Mr. Constantine was chosen from 100 applicants, the selection following many months of deliberation.

Earl Constantine

He succeeds John Nash McCullaugh, who resigned last May to become general manager of Berkshire Knitting Mills.

Mr. Constantine, while not a textile man, brings to the post a long and varied experience in business control, which includes three years as assistant to the president of the National Association of Manufacturers and five years as secretary of the National Industrial Council. Recently he was a special representative of Uhlen & Co., New York bankers, in Colombia. He is 46 years old, and was born abroad. Mr. Constantine takes office immediately; L. R. Keeffe, of the association staff, has been acting secretary in the interim.

Other matters also were considered at the meeting. The directors were told that 75% of the display space for the Knitting Arts Exhibition in Philadelphia, April 11 to 15, had already been sold.

Laboratory Machine Aids Determination of Substantivities of Dyes

By W. P. and E. R. Cohoe

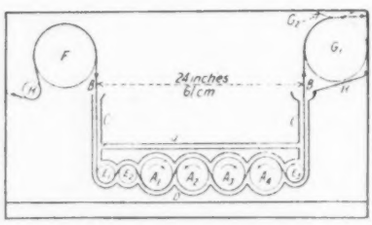


Fig. 1. Cross-section of model laboratory machine

◆ *Important in exhaustion dyeing, adsorption data become a necessity in continuous dyeing. The accompanying article which discusses the use of a laboratory machine which can be employed for determining the substantivity of dyes is abstracted from a paper presented before the division of dye chemistry at the 82nd meeting of the American Chemical Society and reported in the Jan. 15, 1932 issue of the Analytical Edition of "Industrial & Engineering Chemistry."*

THE term substantivity, introduced originally by Bancroft in 1794 to distinguish a class of dyes, has gradually come to describe the attraction which exists between a dye in solution and a fiber it colors. This attraction does not appear to be similar to chemical affinity, but on the contrary, in recent years dyeing has been classed as an adsorption phenomenon. It is well known that for a particular class of fiber some dyes exhibit a greater affinity than do certain others. For instance, in dyeing the vats Jade Green and Yellow Green together by the exhaustion method, the latter color does not attach itself to the fiber to any great extent until the Jade Green is largely exhausted from the solution.

In exhaustion dyeing, where an end point or at least an equilibrium may be reached, adsorption data are highly desirable and useful. In continuous machine dyeing such data become a necessity. Here an equilibrium is never reached. White cloth is continuously entering the dye bath, and dyed cloth is continuously leaving it. If the constitution of the dyebath changes, the shade produced also changes. To prevent such changes, amounts of dyes equal to those removed by the cloth must be continuously fed into the dyebath in order to maintain a constant concentration.

The continuous application of sulfur colors to cotton cloth has been carried on successfully in this country for a number of years. In this case, the formulas of the make-up solutions have been worked out empirically. Because of the inferior tinctorial value of this class of colors, together with a low substantivity, the problem here is unusually simple. Direct dyes, vats, and acid colors present an increasing order of substantivity. As a result of studies upon the continuous application of these colors to various fibers, the desirability of reliable adsorption data became apparent; and a general method for obtaining them has been worked out.

This method consists in determining and comparing the weights of various dyes which attach themselves to woven fabrics in a unit period of time under conrtol conditions. Determinations of the amounts of dye adsorbed in a unit period of time are made by the spectrophotometer.

Equipment Used

As a means of dyeing standard cloth in any desired concentration of dye solution, a regular laboratory commercial model of the skin-friction machine (Fig. 1), devised, by one of the authors, has been used. Only a brief explanation of the principle involved in its use is necessary here. When a submerged or partially submerged solid is moved through a liquid, there is set up in the liquid a corresponding current which follows the travel of the solid. Such motion of the liquid is called a skin-friction current. In the adaptation of this principle to dyeing, the solid takes the form of a number of driven cyclinders submerged in a solution of the dye, and the cloth to be dyed passes under and over successive rolls. When the rolls are revolved, a portion of the dye solution follows them in the form of a skin-friction current. This current travels at high speed and possesses corresponding kinetic energy. Where it meets the cloth, partially lapping the roll, it tends to carry on through the cloth, so that the total effect is like a series of pumps driving the dye solution continuously through the cloth and between the fibers. This arrangement gives a positive circulation of dye solution through the fabric many times during the period of contact.

The laboratory model has all the dimensions of full-scale operation except width. By the use of it, dyeings on narrow strips of cloth, usually 2.5 or 3 in. in width, may be made at concentrations which may be varied from the lowest likely to be used in practice up to the limits of solubility. Temperatures may be maintained at any desired point up to the boiling point of water. The strips to be dyed pass through the machine at the rate of 60 yd. per min., so that the period of contact between a given part of the strip and the dye solution is slightly in excess of 1 second. The volume capacity of the machine is 3500 c.c. The driven rolls are 3.25 in. in diameter, and revolve at a speed of 1740 r.p.m.

Measurements of the color value of dyeings produced by the above means have been made on the General Electric recording color analyzer, devised by Hardy. Read-

ings of samples have been made by the laboratory staff of Cheney Brothers, South Manchester, Conn.

Procedure

The successive steps in this method are as follows:

1. Making of a series of dyeings in which the concentration of the dyebath is known.

2. Making of a successive series of dyeings of decreasing intensity in such a way that the amount of dye adsorbed by a known weight of cloth is known.

3. Determination of the total light absorbed by each member of the above two series.

4. Calculation and plotting of the data obtained in the previous three steps.

KNOWN-CONCENTRATION SERIES. The first step to obtain data on any chosen dye consists in making on strips of standard cloth a series of short dyeings through the machine in which is placed a series of dye solutions of known concentration. Temperature, roll speed, cloth speed, cloth tension, and chemical concentration are held constant for the entire series. Owing to the fact that between the weight of dye attached to the cloth and the color intensity thereby produced there exists a logarithmic ratio, the following percentages of dye are usually employed in the solution: 4, 2, 1, 0.5, 0.25, 0.125 0.0625, 0.03125. Such a series exhibits all ranges of depth usually seen in commercial practice and varies from a very slight tint to a heavy shade.

At this stage we are in a position, after color measurement, to plot a dyeing curve through the range of the above concentrations, if the dyeings made as above can be compared with a series of dyeings wherein definitely known weights of dye are attached to the fiber. Such a curve will show known weights of dye absorbed on one axis and the corresponding concentration of solution used on the other.

In the preparation of the known-weight series, the procedure is to make a long dyeing which passes in intensity of shade through all percentages of the known-concentration series. As it is made, this dyeing changes by infinite variation from the strongest to the weakest member of the known-concentration series. A solution corresponding to the highest concentration of the above series is put into the machine. A constant volume is maintained by using a Mariotte bottle containing water, and proper proportions of caustic soda and sodium hydrosulfite in the case of vat colors, but containing no dye. Temperature, speed, and all other conditions are constant. As the cloth passes through the solution, adsorption deprives the solution of dye, and consequently the dyeing so produced becomes weaker and weaker until finally the cloth passing through the machine is only slightly tinted.

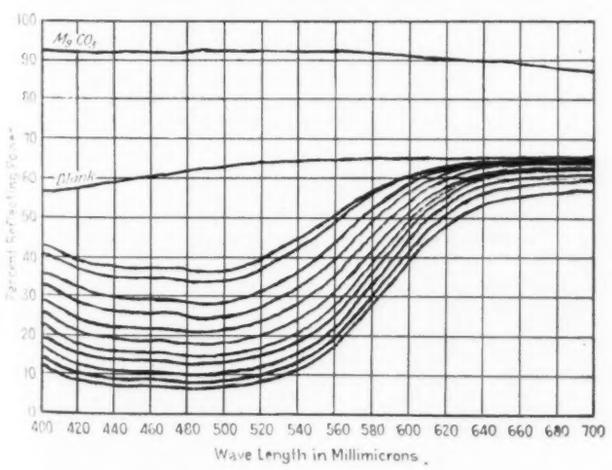


Fig. 2. Color-analyzer curves of known-concentration series

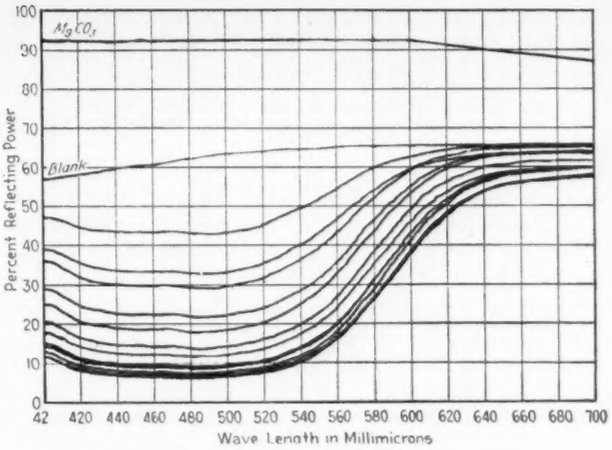


Fig. 3. Color-analyzer curves of known-weight series

Subsequent to customary aftertreatment, the long strip so produced is sampled by taking out a strip at the entering end and thereafter at successive 500-gram lengths. The set of samples thus taken is called the known-weight series.

By referring the members of the series so produced colorimetrically with the known-concentration series, we have a possible method of arriving at the rate of adsorption, since by a colorimetric comparison we arrive at an idea concerning the weights—or lengths—of cloth upon which a definite weight of dye was absorbed in a definite time.

COLOR RECORDS. Each series is now ready for the color analyzer. The procedure followed is to record each series on a single sheet of graph paper which shall show, in addition, a record from a block of magnesium carbonate and from a blank piece of the cloth on which both series were dyed. An examination of the accompanying color-analyzer curves, Figs. 2 and 3, makes it clear that there is a significant and expected parallelism between the different members of a series. Any deviation is at once apparent and may be checked and repeated. Errors in manipulation are fortunately easy to detect.

PLOTTING OF SERIES. For purposes of estimation, it is apparent that the needed data shall include all color values in the visible spectrum. Referring to Fig. 4, the curve *AB*, recording the light reflected from a plane surface of magnesium carbonate, represents for our purposes 100% reflection, and is the standard. The line *CD* records the light reflected from the undyed cloth in the blank, and the line *EF* records the light reflected from the dyed sample. In the calculations the light reflected between λ400 and λ420 and between λ680 and λ700 has been discarded. It therefore follows:

Area *AGHB* = light reflected from magnesium carbonate

Area *CGHD* = light reflected from blank

Area *EGHF* = light reflected from sample

Area *AGHB* — area *CGHD* = absorption of light by blank

Area *CGHD* — area *EGHF* = absorption of light caused by dye applied to blank, which is area *CEFD*. The most simple method of determining these areas consists in running a planimeter carefully around them.

To find the percentage of light absorbed by a sample,

the area under the sample is subtracted from the area under the blank and divided by the area under the magnesium carbonate thus:

$$100 \times \frac{\text{area } CGHD - \text{area } EGHF}{\text{area } AGHB} = \text{percentage absorption}$$

The color-analyzer curves for each of the two series (Figs. 2 and 3) are thus measured and the percentage of light absorption of each sample recorded in tabular form. From these data two curves are now plotted. The first curve, made by plotting the data of the known-concentrations series, denotes the concentration of the dye solution in per cent and the per cent light absorption as recorded. The second curve, made by plotting the known-weight series, gives the weights of cloth run out and the percentage of light absorption by the samples. For convenience a third curve may be plotted which shows the percentage concentration of dye solution and the weight in grams of cloth run out.

Proceeding by a series of variables, we are now able to plot a curve showing the weight of dye on any given weight of cloth. And finally can be plotted a fifth curve which gives the concentration of the dye solution in per cent and the percentage weights of dyes which will be absorbed on cloth when dyed under the conditions present when the two known series were dyed. In Fig. 5 is shown a curve of this type plotted for four well-known vat colors.

The test conditions are usually arranged so as to provide usual and average workability for the dyes of the class into which each comes. It will be understood that these conditions for direct colors, for instance, would vary from those to be employed in the case of vats or acid colors.

Use of Data

In practice, the curves serve a necessary purpose. When a sample is matched on the laboratory machine, the percentage of each dye present is known. Reference to the curve of each dye tells at once how much dye must be fed into the machine to compensate for that taken out by the cloth, and a dyebath is made up accordingly. Conversely, if it is known what dyes and how much of them were used to produce the shade exhibited by a particular sample, reference to the curves will give the needed percentage of those same dyes to be used in the starting bath. The feed in this case will be the amount of dyes which have been found necessary to produce the shade on the sample.

In exhaustion dyeing, a study of these curves proves of practical utility, because it is evident that dyes whose curves have a like or nearly like locus will exhaust at an equal or nearly equal rate, as the case may be. Such dyes give the best working conditions when used together.

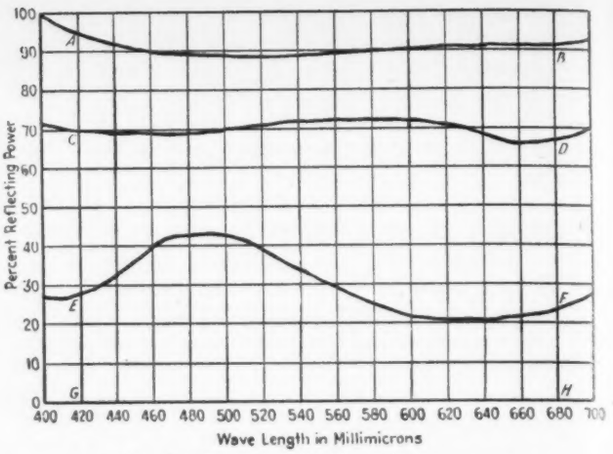


Fig. 4. Simple color-analyzer curve

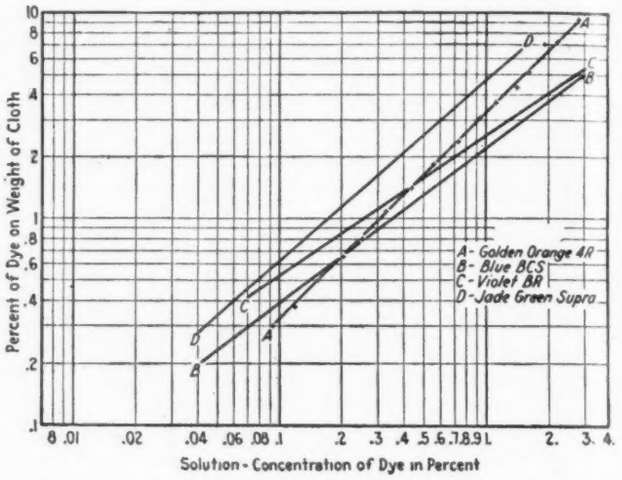

Percent of Dye on Weight of Cloth
Solution - Concentration of Dye in Percent
A- Golden Orange 4R
B- Blue BCS
C- Violet BR
D- Jade Green Supra

Fig. 5. Curve showing concentration of dye solution in per cent and percentage weights of dyes absorbed by cloth

Even when the curves of dyes differ widely, they sometimes cross each other. In this case it is apparent that if dyeing conditions are adapted to correspond to this point of crossing, the dyes will work together well.

It is evident that in the course of this work there has been accumulated considerable data expressing definitely the relationship between color value and weight of adsorbed dye producing it. Once this relationship in a group of colors has been determined, the next logical step is to determine the final color value produced when definite weights of two or more of the group are dyed upon the same fibers. This interesting question is now being studied.

Electrical Developments of 1931 *for Textiles*

By John Liston

(Abstract from General Electric Review)

DEVELOPMENTAL work in the electrical industry was continued actively throughout the year 1931, and improved efficiencies were secured in practically every class of electrical apparatus. Facilities for research work were increased by the construction of laboratory apparatus of higher powers and greater refinement; machinery designs were modified; and improved materials utilized in their construction.

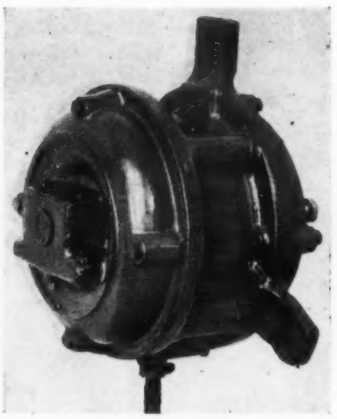


Fig. 1. Loom motor, built in, totally enclosed, waste-packed-bearing, squirrel-cage, polyphase, induction type

There was a marked increase in the number of equipments utilizing control systems actuated by photoelectric and electronic tubes for the control of lighting and power. These were, in many instances, applied to the direct control of industrial machinery.

The electric heating of buildings became economically feasible in certain territories due to the establishment of off-peak rates for this service, and apparatus was developed which would permit the most effective utilization of such rates.

A number of meters and instruments developed in the laboratory were for the first time produced on a commercial basis. Among these were a photoelectric instrument which produces a continuous record from the movement of the pointer of any indicating instrument and an audio noise meter for measuring noises produced by machinery.

In the field of lighting a number of new types of lamps were produced, some of them developed along conventional lines but others having distinctly new features. Among the latter was a combined mercury-vapor and incandescent lamp unit for use in a windowless factory; new types of neon glow lamps for special applications; and ultra-violet producing lamps which are so designed as to permit their safe, continuous use without transformers on normal lighting circuits.

Several new lines of textile motors were introduced. The first was a totally-enclosed type for driving looms (Fig. 1), in which the oiling system was made practically foolproof by the addition of an overflow device. The oil well also provides for a much larger quantity of oil than in previous designs and tends to decrease maintenance by eliminating about two-thirds of the time previously required for oiling.

Another new textile motor (Fig. 2), has a ventilating scheme utilizing large ventilating openings and passages relatively free from obstructions. This motor has met conditions in textile mills where the surrounding atmosphere is filled with lint and where, up to this time, it was necessary to use a screened motor. This new design readily frees itself of lint.

A vertical, totally enclosed, ball-bearing motor was designed with special features for rayon pot spinning. It is operated at high frequency, the ratings being 0.2 hp. at 7,200 r.p.m. up to 0.36 hp. at 10,000 r.p.m.

During the year the general-purpose polyphase-motor lines of the company were supplemented by larger ratings and derivative types to give a complete new line. A type of induction motor was designed having a protected frame, sometimes called "splash proof." Two new single-phase motors were developed, one a vertical type of the square-punching, graded-slot design. The demand for very compact units of very low speed resulted in the introduction of induction and single-phase motors with speed reducers built directly into one end. These units are available with speed ratios normally as high as 12:1.

A new manually operated three-pole full-voltage motor starting switch, with hand reset thermal overload device, was developed for throwing small alternating-current motors directly across the line. The operating mechanism provides a snap action and trips free from the handle on overload, making it impossible to hold the switch closed under injurious overload conditions. A complete redesign of the automatic pressure-switch line was effected, and resulted in a device which is strong and compact, and which has very few moving parts.

A new line of push-button stations replaces a large number of the old type. These are made in individual units and include momentary-contact push buttons; selector switches; indicating lights; and a case for wall or front-of-panel mounting, or panel plates for back-of-panel mounting.

Photoelectric relays were applied to preselective dispatching systems on roller conveyors and also on monorail conveyors. A photoelectric device for control of interior illumination was made.

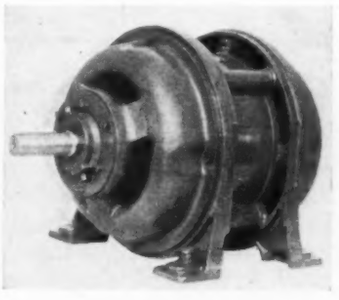


Fig. 2. Ball-bearing, squirrel-cage, polyphase, induction motor for use in lint-laden atmosphere

	6 Thread	4 Thread	Resist Silk	100/2	Looping & Seaming Yarn	
Inventory at beginning	100	100	100	100	100	
Issued into W in P	800	2,000		500	50	
Total	900	2,100	100	600	150	
Inventory at end	150	300	85	50	60	
Actual consumption	750	1,800	15		90	
Standard consumption	720	1,840	10		80	
Gain		40		30		
Loss	30		5		10	
Standard price	$3	$4	$8	$1.50	$1	
Gain		$160		$45.00		$205
Loss	$90		$40		$10	$140
					Gain	$65

Fig. 4. Variation in weight of silk

Materials	Pounds	Total Actual Cost	Standard Cost	Total Standard Costs	Gain	Loss
6 Thread	800	$2440.00	$3.00	$2,400		$40
4 Thread	2,000	7,940.00	4.00	8,000	$60.00	
Resist silk						
100/2	500	750.00	1.50	750		
Looping and seaming yarn	50	$49.50	$1.00	$ 50	$ 0.50	
					$60.50	$40
				Gain	$20.50	

Fig. 5. Variation in cost of materials

Cost-Finding System

Suitable for Full-Fashioned Hosiery Mills

(Continued)

By M. G. Berg

General Manager,
Ajax Hosiery Mills, Phoenixville, Pa.

◆ *In the first installment of this article (Jan. 2, 1932) the author emphasized the need of accurate cost figures, outlined briefly the principles of a simple cost-finding system suitable for use in the full-fashioned industry, and described the method of determining standard costs for material and labor. He now concludes his discussion of standard costs and illustrates the application of the system in a typical hosiery mill.*

SEVERAL methods can be used to establish a predetermined standard for burden or overhead. A percentage of the direct labor, a percentage of the materials consumed, a unit cost, etc., can be taken. We have used as our basis in this discussion, a percentage of direct labor, as we feel that the more we pay on direct labor for a style, the more pains and care have to be taken in its manufacture, and therefore the more supervision and incidental expense in its production. The figure which is used here is an arbitrary one, in the sense that it has been settled on through the benefit of past experience. It will be noticed on the cost card, Fig. 1, (TEXTILE WORLD, Jan. 2, 1932) that the percentage varies with the department all the way from 65% in the knitting to 40% in the looping and seaming. All of these percentages are the result of past records, but they can be changed from time to time as experience dictates. This standard overhead item is compared each period with the actual in order to determine the variation.

The basic principle behind the cost system is to establish standard predetermined costs of the styles being manufactured and to compare this predetermination with the actual. Comparisons should be made periodically, preferably in monthly installments. There are a number of variations which occur in the process of manufacture. The following is a list of those which are essential to this particular problem:

Weight of Material
Price of Material
Direct Labor (Knitting)
Direct Labor (Looping and Seaming)
Direct Labor (Examining)
Dyeing
Direct Labor (Boarding)
Direct Labor (Classifying)
Direct Labor (Counting)
Boxes and Shipping Supplies
Tickets and Transfers
Burden (Knitting)
Burden (Looping and Seaming)
Burden (Examining)
Burden (Boarding)
Burden (Classifying)
Burden (Counting)
Adjustments for Inventory Purposes
Adjustments on Waste
Adjustments on Dye Shortages

As all entries into the work-in-process are made at actual cost and have to be adjusted to standard, it is necessary to make a schedule of every small part which goes into the standard cost card to ascertain whether there is a difference between the actual and the standard cost. If it proves possible to manufacture the product for an amount under the standard cost, the profit-and-loss is credited through the variation schedule, and cost of sales and work-in-process is debited. If the product is manufactured at an amount above the predetermined cost, work-in-process is credited. This is because work-in-process was originally debited at actual cost, which was a greater amount than standard. To balance this entry, profit-and-loss is debited through the variation schedules and cost of sales.

Taking for our example a full-fashioned plant with a production of 4,000 doz. during a four-week period, we shall go through a profit-and-loss statement based on the cost system. The plant is operating on one style only, and the standard cost card has been made up, illustrated by Fig. 1. This card is the basis for comparison between the actual and the standard cost to determine the gross manufacturing profit. Fig. 3 shows a profit-and-loss statement taken from the cost records for the period in question. The first step necessary is to determine the gross standard profit based upon the sales for the period. As the mill is manufacturing only one style, an analysis of the sales will require only a separation into firsts and seconds. Since the standard cost for both of these classifications is the same, it is necessary only to subtract the

		Total Actual Labor	Standard	Total Standard	Gain	Loss
Knitting		$6,408	$1.63	$6,520	$112	
Looping and seaming		1,040	0.26	1,040		
Examining and mending		432	0.115	460	28	
Boarding		500	0.11	440		$60
Classifying		329	0.072	288		41
Counting		220	0.06	240	20	
Totals		$8,929	$2,247	$8,988	160	101
				Gain	$59	

Fig. 6. Variation in direct labor

	Actual	Standard	Gain	Loss
Knitting	$4,500	$4,236		$264
Looping and seaming	412	416	$4	
Examiners and mending	192	184		8
Boarding	200	220	20	
Classifying	300	144		
Counting		120		36
			$24	$308
		Loss	$284	

Fig. 7. Variation in overhead

standard cost from the gross sales to determine the gross standard profit.

This standard gross profit is affected by any variations of the elements going into the work-in-process. As will be remembered, all charges to work-in-process are made at actual cost and adjusted to standard by means of the variations. Listed first, and covered by Fig. 4, is the gain or loss of silk or yarn consumed in manufacturing. Here we find the standard consumption by multiplying the production by the weight allowed and comparing it to the actual. The final total, which happens to be a gain in this case, is entered on the profit-and-loss statement in the gain column.

The next step is to ascertain the gain or loss in the cost of materials going into the work manufactured. Fig. 5 illustrates this. The cost of materials issued to work-in-process is calculated at the standard rate, and a comparison is made between that and actual. The difference, a gain in this case, is placed in the gain column for variations.

Direct labor is handled in approximately the same way (Fig. 6). The quantity produced is multiplied by the amount allowed in each department according to the standard cost card, and the difference between this figure and the actual cost shows the gain or loss. Direct labor can be broken down into a finer division of departments if it is so desired, but the principle remains the same. The payroll analysis illustrated in Fig. 2 gives the actual direct-labor cost. The difference between standard and actual cost for direct labor is entered on the profit-and-loss statement in the usual manner.

Burden variation is shown in Fig. 7. Burden includes indirect labor, as well as all other expenses assigned to overhead. Here again, the cost of the number of dozens produced is calculated at the standard rate and a comparison made with the actual cost. In this particular case the variation is a loss; and therefore it is placed in the loss column.

All of the other variations are handled in the same way. The standard cost is compared with the actual, and the loss or gain is entered on the profit-and-loss statement. Finally these gains and loses are totalled, and the net difference is either added or subtracted from the gross standard profit to give the gross manufacturing profit. Naturally, the discount on sales is deducted from this item, leaving the gross profit. Commercial expenses are then deducted to give the net profit.

To tie in the cost system with the general accounts, a work-in-process account is opened. This is debited for the amount of the inventory at standard cost. The regular merchandise account is credited with this amount, and the difference between this and the former balance is closed out through profit-and-loss. All items going into work-in-process are debited to that account at the actual cost. When the schedule is prepared showing the transactions covering a certain period, the actual cost is adjusted to standard. The net amount of these adjustment variations is debited to work-in-process in case there has been a gain, and credited to work-in-process in case there have been a loss. These entries are made in conjunction with the cost-of-sales entries; and at the same time, work-in-process is credited with the standard cost of sales plus or minus the variation. This necessitates a cost-of-sales account, which is closed into the sales account. The balance of the sales account, which is the gross manufacturing profit, is closed into the profit-and-loss account.

All other profits and losses are also closed into the profit-and-loss account. The final balance obtained after all these closing entries have been made is the net profit for the period, and is credited to surplus.

There are certain refinements which can be made in this system to afford a better understanding of the operation of the business. Only the underlying principle is discussed in this article. The real purpose of a cost system is to give the management a clear insight into the cost of the various elements going into the product. In this way, if a correction is necessary, the proper place for readjustment can be located.

PROFIT AND LOSS STATEMENT
4 Weeks Ending September 26, 1931

	Sales	Standard Costs	Loss	Gain
Sales of Firsts	$27,200.00	.....	.....	.....
Mfg. Cost	.....	$20,992.00	.....	$6,208.00
Sales of Seconds	4,800.00	5,248.00	$448.00	.....
Mfg. Cost	$32,000.00	$26,240.00	$448.00	$6,208.00
				448.00
Gross Standard Profit				$5,760.00

Gain or Loss on Variations

	Gain	Loss	
Weight of Silk and Yarn	$65.00	.....	
Price of Silk and Yarn	20.50	.....	
Direct Labor	59.00	.....	
Burden	.....	248.00	
Dyeing	100.00	.....	
Boxes and Shipping Supplies	20.00	.....	
Tickets and Transfers	13.00	.....	
Inventory Adjustments	.....	39.36	
Waste	.....	37.86	
Dye Shortages	.....	6.56	
Total	$277.50	$367.78	90.28
Gross Mfg. Profit			$5,669.72
Less Discount on Sales			320.00
Gross Profit			$5,349.72

Commercial Expenses

Shipping Expenses	$125.00	.....	
Sales Expenses	1,500.00	.....	
Cost and Purchasing	110.00	.....	
Accounting	212.00	.....	
Real Estate	461.00	.....	
Administration	751.00	.....	
	$3,159.00		
			3,159.00
			$2,190.72
Discount on Purchases			60.31
Net Profit			$2,251.03

Fig. 3. Profit-and-loss statement

Overseers' Round-Table

THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page

◆

Health of Mill Workers

Editor, Overseers' Round-Table:

ANY MAN who says that the textile workers, as a whole, are below workers in other industries, physically or mentally, is all wet. If anything will make my blood boil, it is to read a newspaper article, written by some narrow minded skunk, on conditions in the textile industry. If they would tell the truth it would be different, but they will take the lowest type that they can find as an example of the whole industry.

Textile workers are just human beings like any other workers and it requires just as much skill to operate machines in a cotton mill as it does in any other industry. As for the pale, anemic worker, we don't have them. I repeat, "Textile workers are on an equal, physically and mentally, with any other workers."

P. A. WYNN,
Overseer Carding.

Editor, Overseers' Round-Table:

MASS PRODUCTION may have made some of our jobs monotonous, and our wage scale low, as compared with other industries, but this is no sign that our brains refuse to work and that we have no physical energy.

I wonder where these writers think that the beautiful patterns of cloth, from which they choose their clothing, come from. Do they think the brains that create these patterns dull? Then why should they think and write of the people who handle the cloth as mentally and physically lacking?

It might prove a waste of time trying to reason with these writers, but a good baseball bat is handy. They should have to wear clothes made of skins—skunk skins at that.

OVERHAULER.

Editor, Overseers' Round-Table:

TO DELINEATE the character of the textile workers en masse is a most difficult task. Those who form the units of a trade are like those who constitute the units of a nation, for each one thinks that he belongs to the best.

Before I venture to pass my judgment, I must give my grounds for considering myself capable of forming an opinion free from bias. My calling is of a mechanical nature, and has led me into many diversified ways, and it has only been during the last few years that I have had association with the textile trade. My experience has not only been interstate but international. I think it will therefore be agreed that I can speak from a more neutral standpoint than one who has been bred and born in a textile district.

During the last five years I have come in close contact with hundreds of textile workers and find some good, some bad, some highly intelligent, others mindless, some industrious, some indolent, some moral and some immoral, and it is almost impossible to generalize. Therefore, taking the

About Community Houses

"THESE days," Superintendent Chase said as the meeting opened, "every concern is looking over expenditures and applying the test of whether certain expenditures are worth while. I'd like to have your opinions on money which a concern spends for what might be called welfare work —baseball grounds, club houses and that sort of thing. Do you think that money spent in this sort of way brings a proper return to the mill?"

"Just the other day," Bill volunteered, "I drove over to visit a friend of mine who works in a mill not far from here. After we sat around and gossiped a bit he said he was going to take me to the movies and we went to a large community building which the mill had put up. There was a fine hall for the movies and my friend later showed me with great pride various rooms which could be used by the mill workers and even a gymnasium. I tell you, it seemed pretty good to me. If the mill hadn't put up such a building the workers would have no place to gather and would have to go to some movie joint in town. There is so much of the human element in making things pleasant for employees that I almost hate to bring it down to a dollar basis, but I'll bet you that that concern receives good interest on the investment in the line of good will. Good will means an awful lot and I firmly believe in the mill strengthening morale by building and maintaining community houses and so forth."

"I can't agree with you, Bill," Hank spoke up. "The mill is a business proposition and should be run as such, with as few frills as possible. Most of the time the help don't appreciate what the company does for them in this line anyway. They just take it for granted. Building and running a community house costs real money and I think that it would be far better if the money were put in the pay envelop. When a man goes to work he doesn't want to think that the company considers a lot of outside frills as part of the compensation. He wants to get paid all he is worth in cash and spend it as he pleases."

for Employees

"I'm inclined to take a middle course," Pete offered. "I don't believe in a company going ahead and sinking a lot of money in such plans. However, in certain cases, particularly where the mill is off the beaten track, I think that the workers really need some place to gather, and see movies, for example. My idea is that the impetus should come from the workers. If they want a community house they should handle it themselves. Let them draw up plans and then approach the company with a proposition to the effect that if the company will advance the money at a reasonable interest rate they, the workers, will run the place and pay expenses through dues or admission charges. This places the thing on a business basis, removes any talk of paternalism and the workers certainly take more interest in something they feel is their own. Further, it gives a feeling of independence. Where the employees know that the company foots all the bills they are hesitant about taking advantage of something that looks a bit like charity."

◆

What are *your* ideas about the company building and maintaining community houses, baseball fields, etc.?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

textile workers as a whole, I have no bouquets to offer, or eggs that are past the "fresh" standard to throw. I would delineate the textile workers as being no better, no worse, and I might almost say, no different. T. R.

Editor, Overseers' Round-Table:

THE TEXTILE worker is not below the average worker in other industries, mentally or physically.

We must consider that a textile worker has a lot to contend with in taking care of a lot of looms and knowing at a glance what is wrong with the cloth. Everybody cannot be a textile worker as there have been many who have been tried and found wanting. The workers of certain other industries are stationary at one machine and all they know is the one job, while the textile worker must be alert at all times and, as a rule, can be shifted from one machine to another.

During the war period I was in charge of a large munition plant and found that the fastest and most dependable workers were those who came from the silk mills. So, listen to me, Hank. Don't think textile workers are dumb, as some of our most prominent men have risen from the ranks and a textile worker is nobody's fool. J.P.

Editor, Overseers' Round-Table:

IT WOULD be strange indeed if the textile industry, with its many thousands of workers, could escape the type of magazine or newspaper criticism, which, professing to "expose" conditions, gives a lurid and distorted view of the mental and physical makeup of the average textile worker.

In the main, it has been my experience, even in mills where conditions with regard to lighting and sanitation were not ideal, to find a level of physical and mental efficiency which compares favorably with any of the non-textile occupations. With improvements and modernization programs still going forward in all branches of our industry, it is obvious that still higher standards will be attained.

It is rather gratifying to note, as reflecting on the intelligence quotient of the textile worker, that in New England at least many of the evening classes of the various technical schools have a waiting list of pupils desirous of enrolling for the study of textile subjects, as opposed to decrease in enrollment for non-textile pursuits. R. S. A.

Cooperation with Office Force

Editor, Overseers' Round-Table:

I WISH to cast my vote with Pete in regard to cooperation between the office force and the overseers as I think he is absolutely right in his explanation of how to handle the different problems that require the presence of the overseer or foremen in the office.

If I have a question that I wish to satisfy myself on and I do not have to carry a ledger or an armful of reports all over the department, I think I should look the foreman up in his room and in this way I may save him some valuable time.

On the other hand, if I think it would be the best to have the foreman come to the office for the information I do so in a way that will not cause him to think that I am giving him orders in a "high and mighty manner."

Yours for cooperation between the office force and the department heads. CLERK.

◆

Summary of Discussion On Textile Workers as a Group

Although the opinion was unanimous that textile workers, as a whole, were not below workers in other industries, mentally or physically, the contributions brought out many interesting points. In general, it was stated that the amount of alertness and versatility required of the textile operative certainly equalled, at least, that demanded in other industries. One letter brought out the interesting opinion that textile employment was so irregular that many workers were forced to try other lines at times, and thus often gave the impression of dumbness because they were tackling entirely unfamiliar jobs.

Institute Board Urges 100% Observance of Night Work Policy

AT A meeting of the Board of Directors of the Cotton-Textile Institute held at the Union League Club, New York, last week, the following resolution was unanimously adopted:

WHEREAS, pursuant to a recommendation by this Board that the cotton textile mills discontinue the night employment of women and minors, a preponderant part of all cotton mills in the United States, representing well over 80% of the spindleage, has pursued this policy since March 1, 1931, and

WHEREAS, the benefits of this measure to the industry are manifest in the better relationship between production and demand, avoidance of excessive inventory, and reduced fluctuation of monthly output and running time during 1931 as compared with previous years—all resulting in better stabilization and spread of employment, and

WHEREAS, this effort has been successfully achieved in so brief a time and thus represents a remarkable demonstration of industrial accomplishment along economic and social lines, and

WHEREAS, the social benefit has been very great and must not be jeopardized or impaired,

THEREFORE be it resolved:

That the Board of Directors of the Cotton-Textile Institute urges that this policy, where already established be continued in effect,

That it recommends the voluntary observance of the policy by each and every cotton mill in the United States,

That it exhorts members of the Board, officials of the Cotton-Textile Institute, and all constructive leaders in the industry to devote constant and increased attention to persistence in and added observance of this recommendation.

▸ Wide Sheeting Mills to Reduce Operating Schedules

A largely attended meeting of the Wide Sheetings Group of the Cotton-Textile Institute was held in New York last week. Mill executives and selling agents representing practically every wide sheetings plant in the United States were present.

George A. Sloan, president of the Institute, attended the meeting and exchanged views with those present on the general conditions in the industry, and in industry in general, with particular reference to the present tendency to shorten the work-week so as to avoid overproduction and instability of employment. Discussion developed a very general appreciation of the importance of adjusting production to demand.

In order to observe a shorter work-week policy several of the day and night operators present indicated that they would effect a reduction of at least 25% from their normal schedules and representatives of mills operating day time only indicated their purpose individually to reduce running time 20%. In some cases the mills are planning production schedules considerably below these percentages.

A review of the wide sheetings statistics for the year 1931 shows higher yardage shipments than for any year in the four-year period for which statistics in this group are available. It is generally felt that this improvement for the wide sheetings business is based in part upon the growing demand for longer sheets and particularly the 108" length which is more and more accepted as standard by retail and wholesale distributors.

▸ Promoting Personal Stationery Made of Cotton

Encouraged by their success with cotton fabric stationery in 1931, during which year they sold 2,500,000 business letterheads, S. C. Toof & Co., Memphis, Tenn., have now designed and made up personal stationery attractively packaged in cellophane. Envelopes of cotton fabric are a part of this stationery package, which has been placed with splendid sales results in leading department and stationery stores in cities in the West and South.

This printing house has mapped out a promotional program which was inaugurated recently with a radio broadcast from Memphis. In connection with this program, there is being distributed a tribute to cotton written by Virginia Frazer Boyle of Memphis.

"But of Course Textiles Are Different. . . ."

Transparent wrappings were cutting into its waxed paper market so the Nashua Gummed & Coated Paper Co., of Nashua, N. H., went to the other extreme and capitalized on a completely opaque paper.

This, with other new products developed from 1931's necessity, plus some new production ideas, increased the rate of net profits 12% and made possible an extra dividend of $1 a year.

The Nashua Gummed & Coated Paper Co. is 83 years old.

▸ "Anywhere—Everywhere—For Long Wear—Use Mohair"

"Anywhere—Everywhere—For long long wear—Use Mohair" was judged the best slogan submitted in the National Mohair Slogan Contest. The judges were Edward A. O'Neal, President, American Farm Bureau Federation, Birmingham, Ala., C. A. Ewing, President, National Livestock Marketing Association, Chicago, and J. Byron Wilson, General Manager, National Wool Marketing Corp., McKinley, Wyoming.

The winning slogan was submitted by Fred L. Petty of Elmhurst, Ill., who will receive as a prize a handsome mohair rug, 36x72 in., donated for the occasion by the Joseph Benn Corp., manufacturers of high grade mohair products.

The National Mohair Slogan Contest was sponsored jointly by the National Livestock Marketing Association and the National Wool Marketing Corp. in connection with their Mohair Fabric Exhibition held at the American Farm Bureau Convention at Chicago Dec. 7-9.

▸ Mergers Will Revive Lost Art of Making Profit

(Continued from page 23)

There are half a dozen selling agencies in Worth Street that distribute 85% of all the print cloths. Print cloths are the barometer of the trade. As print cloths fluctuate, so goes the balance of the cotton textile market.

It seems ridiculous that six commission houses in such a commanding position cannot regulate production, consumption and prices, but they are unable to do so because they are unable to dictate and control the policies of the mills which they represent.

If the print cloth mills now represented by these houses were merged into one large corporation, and if the product were sold through one channel controlled by such a corporation, the profits would be tremendous, and the stabilizing effect of such a merger upon the cotton textile industry would spell prosperity.

The consummation of such a plan would not be difficult. The mill owners would gladly pass control upon a fair basis and depend upon a share in the junior securities for their eventual return.

It is possible that the attention of those powerful forces which are now enlarging their textile interests may be focused upon a plan for the merging of large print cloth mills, and if carried through, the result will be a golden harvest.

Could there possibly be a more fertile field for profits than in the controlled manufacture and distribution of a commanding percentage of a nation's production of a basic necessity which does not corrode, rust or decay and for which an established market exists?

We are now entering upon the rehabilitation period and upon the era of readjustment of all elements to the changed order.

There is need and a place for all the various factors that have functioned in the past, but there will be new alignments and affiliations that will eventually succeed in bringing order out of chaos; merchandising will be concentrated in fewer and stronger hands; vertical and horizontal mergers will be the order of the day.

The lost art of making profits out of business will have a renaissance and fair market value will be demanded and

Jack Card Is Getting Completely Out of Hand

Editor TEXTILE WORLD:

Nearly two weeks have passed since you published my "funny" story—and yet no attempt has been made on my life. So I'm emboldened to try another one. I got this from an editor in another field.

A fabric manufacturer was having the usual experience with a buyer. Finally, after his price had been progressively whittled down, the seller threw up his hands in disgust and said: "Oh ————, take the ———— goods for nothing." The buyer thought for a moment or two and then replied: "Alright —but with the usual trade discount?"

JACK CARD.

will be gladly granted by the buyer in the interest of stabilization.

The end of the death struggles of the inefficient and under financed is near at hand. The fittest have survived, and will reap the benefit of their strength. Capital will recognize its opportunity.

The old order changeth. The new order is at hand.

▸ December Cotton Goods Sales Relatively Well Maintained

Statistical reports of production, shipments and sales of carded cotton cloths during the month of December, 1931, were made public Monday by the Association of Cotton Textile Merchants of New York. The figures cover a period of five weeks.

Production during December amounted to 254,692,000 yd., or at the rate of 50,938,000 yd. per week. This was 12% less than the rate of production during the month of November.

Shipments during December were 237,834,000 yd., equivalent to 93.4% of production. Sales during the month amounted to 204,916,000 yd., equivalent to 80.4% of production.

While shipments and sales seldom equal production during December because of the reluctance of purchasers to increase their year-end inventories, both of these items were substantially greater than during December, 1930—shipments being 5% more and sales 12% more.

Stocks on hand at the end of the month amounted to 290,248,000 yd., representing an increase of 6.2% during the month. Unfilled orders on Dec. 31, 1931, were 322,039,000 yd., representing a decrease of 9.3% during the month.

Both shipments and sales for the calendar year of 1931 were substantially in excess of production. Sales for 1931 amounted to 2,891,229,000 yd., compared with 2,774,712,000 yd. for 1930.

During 1931 stocks were reduced 73,714,000 yd., equivalent to 20.3%; and unfilled orders increased 33,083,000 yd., equivalent to 11.5%.

Sirrine Executive Urges Five-Day Week and Six-Hour Day

REDUCTION in the length of the working period, as a practical and effective means of creating and spreading work to a larger number of people, was recommended by John A. McPherson, vice-president and chief engineer, J. E. Sirrine & Co., Greenville, S. C., in a paper delivered before the South Carolina Society of Engineers, at Columbia, S. C., Jan. 7. The stabilization of employment was declared to be a fundamental factor in the establishment of permanent prosperity.

Mr. McPherson's paper, entitled "The Unemployment Problem," pointed out the important part that engineers can play in solving this difficult problem. His discussion, in part, was as follows:

"While we may deplore the passing of an era of individualism which many of us consider the ideal condition of society, we must recognize the fact that we have entered into an era where organization and concerted action is necessary, if progress is to be made. Lasting progress is impossible under the growing complex of society that is evolving and our future weal or woe will depend on how organized efforts are directed. If the politicians control and direct, we may confidently expect inefficiency, bungling and, finally, oppression. It may sound presumptive as a practicing engineer to say that our problem will have to be eventually solved by the engineers, but I sincerely believe that it is the work of the engineers, and especially organized engineers.

"Universal gainful employment for every human capable of work is the answer; knowing the answer to our problem, is it not possible to eventually find a working formula? We cannot consume unless we produce, and we cannot produce unless we consume. The circle is broken at present; how to repair and keep this circle in repair is the great opportunity of the engineer.

"What can be done to recreate purchasing power and to utilize the vast potentialities existing in the urge to work that now exists? Plainly not by working harder and longer hours. Machinery has made this unnecessary. Leisure for the consumption and enjoyment of the good things of life is essential. It is the equitable distribution of employment and opportunities to consume that must form the foundation of prosperity, and it is here that the engineers can contribute.

"A memorial should be made from the engineering societies to our city, State and national governments, that all public work should be distributed over a five-day week and a six-hour working day; that would be the first step in that direction. Recommend to manufacturing and commercial associations that this lead be followed. If generally adopted, it would bring about conditions that would insure work for practically everyone needing and willing to work.

"The adoption of shorter hours is not possible as a legislative fiat. It is not to be expected, neither would it be possible or desirable, to effect such a fundamental change overnight. It is a change that must come gradually and only as fast as industry and commerce can become adapted to the new conditions created.

"What has been suggested is no new idea; it has been advocated by many sound thinkers, as well as by visionary theorists. But it contains, I believe, one of the fundamentals necessary for the return of permanent prosperity.

"Experiences teach us that only through leisure from toil can man's fullest spiritual and intellectual capacities be developed. Through the proper use of leisure hours made thus possible, it is within our power to enter and possess a promised land of plenty and to make a reality of that golden age which has been the hope and dream of mankind."

▸ Textile Foundation Hopes to Have Two Reports Ready in March

At a meeting of the board of directors of the Textile Foundation in Washington, D. C., last Monday, important developments were discussed and new projects considered or authorized. Franklin W. Hobbs, chairman of the board of directors, reported that the study on distribution of woolens and worsteds now being conducted by Paul T. Cherington was progressing satisfactorily and that the completed report will probably be ready the latter part of March.

At the suggestion of Stuart W. Cramer, treasurer, there is under way a survey having for its purpose the collection of information on designs touching on various depositories of textile collections and a list of literature bearing on the subject of textile design. This report will be available for distribution about March 1.

In connection with the research work on color fastness now being carried on by the American Association of Textile Chemists and Colorists, the directors allocated the sum of $5,000 to the research committee of that association so that the work might be continued and extended by employment of research specialists.

The five directors present were: Franklin W. Hobbs, chairman; Stuart W. Cramer, treasurer; Secretary of Agriculture Hyde; Secretary of Commerce Lamont; Henry B. Thompson, and Edward T. Pickard, secretary and assistant treasurer.

▸ Three New Institute Directors Elected

At a meeting of the Executive Committee of the Cotton-Textile Institute held in New York last week, the following members were elected to the Institute's Board of Directors: C. M. Bailey, Lydia Cotton Mills, Clinton, S. C.; A. W. Dimick, Grosvenor-Dale Co., Providence, R. I.; and Thomas H. Webb, Locke Cotton Mills Co., Concord, N. C.

NEWS about MEN

William B. MacColl, treasurer of the Lorraine Mfg. Co., Pawtucket, R. I., has been elected a director of the Industrial Trust Co., Providence, to fill the vacancy caused by the death of his father, **James R. MacColl. Sinclair Richardson,** another prominent textile executive, has also been elected a director of the Industrial Trust Co. Mr. Richardson is vice-president and treasurer of American Bleached Goods Co., Inc., treasurer of Federated Textiles, Inc., president of the Kelsey-Wilton Textile Corp., and president of the Rumford Textile Co., all New York concerns.

Merle Bell, president of the Bell Co., Worcester, Mass., has been appointed by the Farm Board to the advisory committee. He was selected by the cooperatives handling wool and mohair.

Kenneth G. Judson, of Judson & Co., was elected treasurer of the New York Cotton Exchange Jan. 8, to fill the vacancy created by the death of **T. Lurelle Guild. Charles S. Montgomery** was elected a member of the board of managers to take the place of Mr. Guild.

Thurmond Chatham, president of Chatham Mfg. Co., Winston-Salem, N. C., has been elected secretary of the board of directors of North Carolina College for Women at Greensboro. He has been appointed to succeed his father **H. G. Chatham** who died two years ago.

W. C. Bobo, formerly general manager of Judson Mills, Greenville, S. C., and more recently with Gossett Mills, Anderson, S. C., has been elected president and treasurer of Pisgah Mills, Inc., Brevard, N. C., and will be in active charge of manufacturing. **B. E. Geer,** of Greenville, will be vice-president of the company.

Austin T. Levy, president of the Stillwater Worsted Mills, Harrisville, R. I., who has been spending a vacation at his winter home at Nassau, West Indies, is expected north shortly.

Samuel Pearsall, treasurer of the Worcester Textile Co., Inc., Valley Falls, R. I., has been elected president of the Continental Worsted Mills, Inc., Spencer, Mass., manufacturers of men's wear worsted fabrics.

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Solon D. Bausher, president of S. D. Bausher & Son, Inc., Hamburg, Pa., as well as "Infants' Socks," Inc., Reading, Pa., has been elected president of the Hamburg (Pa.) Savings & Trust Co., and one of the board of directors. **David S. Wolf** has been elected a vice-president and director of the bank. Mr. Wolf is proprietor of the Globe Underwear Co. and the Globe Dye & Bleach Works, Shoemakersville, Pa.

Charles A. Stevens, former vice-president and treasurer of the Nu-Craft Hosiery Mills, Inc., Mohnton, Pa., expects to organize a selling agency with offices in Reading and New York.

H. Carrol Brooke, treasurer of the Edgewater Dyeing & Finishing Co., Frankford, Philadelphia, has been re-elected president of the Board of Commissioners of Cheltenham Township, Pa. He has held this office for 15 years.

L. O. Erwin, secretary and treasurer of the Erwin Mfg. Co., Huntsville, Ala., is spending some time at the New York office of his company.

R. O. Arnold, secretary of the Mallison Braided Cord Co., Athens, Ga., has been made general manager of the Covington (Ga.) Mills, which produce fine sheetings, employ about 300 operatives, and have 30,000 spindles.

Herbert W. Wilkenson, for the last five years general manager of the Southbridge (Mass.) Finishing Co. and the Sturbridge Finishing Co., Fiskdale, Mass., has severed his relations with those companies. His future plans have not been made known.

W. V. E. Terhune, of Terhune, Yereance & Wolff, New York, who has been confined to his home with an attack of the grippe, returned to business this week.

Lester E. Green, has taken over his duties as general sales manager of Mohawk Carpet Mills, Inc., Amsterdam, N. Y. He was formerly in charge of the company's sales division with headquarters in St. Louis. **James D. I. Husband** has been appointed director of sales. **George Lamble** has resigned as vice-president and general sales director.

John L. Teller, who manufactured underwear under the firm name of J. L. Teller Co., and before that was sales manager of the old Frisbie-Stansfield Knitting Co., Utica, N. Y., has been made Midwestern sales manager of the Augusta Knitting Corp., Utica. **John C. Bray,** who has been associated with Mr. Teller, will cover the State of Ohio. **William Mendoza** will sell in Eastern Pennsylvania, and **A. S. Roos** in Western Pennsylvania.

George Hamlin, general sales manager of The Viscose Co., New York, returned to New York Jan. 12 on the Ward liner "Morro Castle," following a three weeks' vacation in Havana.

Ralph W. Taylor has resigned as manager of the rayon department of Jno. Dunlop's Sons, Inc., New York, and will organize a rayon department for Waterman Currier & Co., yarn merchants, New York. Mr. Taylor's former connections have been with Read & Lovatt Mfg. Co., and Tubize Artificial Silk Co., New York.

A. A. Arnold, of the Belding Heminway Co., New York, has been reelected chairman of the Sewing Silks and Twists Division of the Silk Association of America, Inc. **J. T. Slattery,** of Cortecelli Silk Co., New London, Conn., has been reelected secretary.

M. Harry Whelan, purchasing agent of the Pepperell Mfg. Co., Biddeford, Me., has been elected president of the Kiwanis Club for the new year.

Robert A. Coburn, associated with the Fruit of the Loom Mills, Inc., Providence, for the last three years, has resigned as supervisor of New England sales.

Textile Calendar

Annual Dinner, Silk Association of America, Waldorf-Astoria Hotel, New York, January 21, 1932.

U. S. Institute for Textile Research, meeting of Research Committee, Chemists' Club, New York, Jan. 21, 1932; meeting of Executive Committee and Board of Directors, Jan. 22, 1932.

Textile Forum, N.A.C.M., for overseers of warp preparation and weaving. Chamber of Commerce Bldg., Boston, Mass., Feb. 11, 1932.

Textile Forum, N.A.C.M., for overseers of dyeing, bleaching and cloth room, Chamber of Commerce Bldg., Boston, Mass., Mar. 10, 1932.

Committee D-13, American Society for Testing Materials, Spring Meeting, Providence, R. I., March 10-11, 1932.

Silk Association of America, Annual Meeting, 468 Fourth Avenue New York, March 23, 1932.

National Association of Hosiery and Underwear Manufacturers, Annual Meeting, Commercial Museum, Philadelphia, Pa., April 14, 1932.

Knitting Arts Exhibition, 28th Annual Show, Commercial Museum, Philadelphia, April 11 to 15, 1932.

Textile Forum, N.A.C.M., General Meeting for agents and superintendents, Chamber of Commerce Bldg., Boston, Mass., April or May, 1932. (Date is to be announced later.)

Second National Cotton Week, nation-wide promotional campaign, May 16 to 21, 1932.

Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 17 to 22, 1932.

Robert **H. Morrison** has been selected to be the resident agent in Baltimore for Federated Textiles, Inc., New York. Mr. Morrison is a native of that city, and has been with the Daniel Miller Co. there for some years. He has recently been associated with A. H. Vandam & Co.

John **L. Fonville,** formerly with the Aurora Cotton Mills, Burlington, N. C., has become superintendent of the King Cotton Mills Corp., Burlington, N. C. He takes the place of **Thomas L. Curlee,** who died Oct. 29.

J. **A. White** has recently been promoted to the position of superintendent of the Cleveland Cloth Mills, Shelby, N. C.

Herbert **S. Hornberger,** until recently superintendent of the West Knitting Corp., Wadesboro, N. C., has become superintendent of the Bassett Knitting Mills, Inc., Bassetts, Va.

C. **S. Henerey,** assistant to **John H. Cope,** president of Santee Mills, Orangeburg, S. C., has been issued a license by the U. S. Department of Agriculture to classify cotton, and to certify its classification.

Frank **P. Madden,** of the Boston office of Turner, Halsey Co., was recently elected president of the Boston Chapter of the Lowell Textile Institute Alumni Association, succeeding **Russell Fisher,** secretary of the National Association of Cotton Manufacturers.

Fred **Philipson,** formerly western representative of the U. S. Worsted Co., Boston, Mass., and later for a number of years with the American Woolen Co., New York, has been appointed western representative of the Lippitt Woolen Co., Inc., Woonsocket, R. I., with headquarters in Chicago.

T. H. Webb, secretary and treasurer, Locke Cotton Mills Co., Concord, N. C., who has been elected to the Board of Directors of the Cotton Textile Institute

Dudley R. Horton has been appointed representative of the men's wear department of the Hamilton Woolen Co., Southbridge, Mass., to cover the Middle Western states. Mr. Horton will make his headquarters at 223 West Jackson Boulevard, Chicago.

Elmer H. VanName, for the last 14 years associated with Turner, Halsey Co., New York, has left that organization. For nearly 10 years Mr. VanName managed the company's bunting department, which is in the process of being discontinued.

D. E. Meyer, who represented Julius Kayser & Co., New York, in the Middle West for six years, has joined the force of the Lehigh Silk Hosiery Mills, Philadelphia, and will cover the same territory for this company.

Nino Da Parma, of Celanese Corp. of America, New York, is reported to be showing satisfactory progress following an appendix operation last week. Mr. Da Parma is in the Manhattan General Hospital.

Daniel A. Wechsler, whose resignation as merchandise manager and stylist at the General Silk Corp., New York, was made known in these columns recently, and **Alfred Steiner,** formerly with A. D. Juilliard & Co., New York, have organized a new silk manufacturing and converting firm which will do business under the name of Wechsler-Steiner Fabrics Corp., with offices at 1441 Broadway, New York.

George Wecksler, formerly with Edward S. Mitchell, Inc., and **Irving G. Belaief,** formerly with the Pennsylvania Hosiery Mills, New York, will head a new selling agency to be called Hosecraft, Inc., at 399 Fifth Ave.

Walter H. Bartindale, formerly with L. Salomon & Co., New York, has become identified with the Walther Mfg. Co., Philadelphia.

J. C. Sanders, of Iselin-Jefferson Co., New York, returned to New York last week, after a visit in the South. He made the trip by automobile, traveling 4,200 miles.

Henry Bergeron and **J. L. McMahon,** both formerly of Winsted, Conn., are now employed as carders at the Henry D. Bailey Mill, Inc., Hope Valley, R. I.

Obituary

William Henry Smith

William Henry Smith, retired lace manufacturer, died in Bridgeport, Conn., Jan. 8, at the age of 80 years. He was born in Calais, France, where he learned the rudiments of lace manufacture. He became one of the pioneers in the lace industry of this country, heading various enterprises in Pawtucket, R. I. Mr. Smith became an expert in his particular line and was consulted by this government on matters concerning tariff on laces, and the importation of labor for the lace industry. He is survived by two sons and two daughters.

Augustin Lepoutre

Augustin Lepoutre, aged 70 years, president of the Lafayette Worsted Co., Woonsocket, R. I., died in Roubaix, France, on Jan. 5. Mr. Lepoutre played a large part in the industrial development of Woonsocket through the establishment of the American branch of the Lepoutre interests in that city. Contributions from him and his brother, Louis, made possible the erection of Mt. St. Charles Academy in Woonsocket. He also gave liberally to other Woonsocket institutions, notably those sponsored by Precious Blood parish.

Linneus Haggas

Linneus Haggas, aged 50 years, Providence, R. I., overseer in the yarn department of the Uxbridge, Mass., Worsted Co., Inc., died of a heart attack on Jan. 9, while on his way home from work.

Alfred M. Suther

Alfred M. Suther, assistant superintendent of Kaltenbach & Stephens, Inc., Allentown, Pa., died Jan. 9 at the age of 43 years. Mr. Suther had been having heart trouble for some time.

Charles Perham

Charles Perham, inventor of the Perham loom, died Jan. 5 from injuries received when he was struck by an automobile. Mr. Perham was 63 years of age, and was well-known as an inventor.

Herman F. Stephens, Sr.

Herman F. Stephens, Sr., who went to Los Angeles, Cal., about 14 years ago to help found the West Coast Knitting Mills, died last week at the age of 52 years. Mr. Stephens went West from Chicago where he was connected with a knitting enterprise of Marshall Field & Co.

Stanley O. Schell

Stanley O. Schell, young industrial chemist at the Berkshire Knitting Mills, Reading, Pa., died as the result of an attack of appendicitis last week. Mr. Schell attended Pennsylvania State College and Albright College. He is survived by his parents.

Thomas L. Bowen

Thomas L. Bowen, salesman for the American Thread Co., at Indianapolis, Ind., was buried Jan. 6. Mr. Bowen, who was a native of Lithia Springs, Ga., was employed as salesman in Atlanta for many years before being transferred to Indianapolis.

NEWS about MILLS

Cotton

***New Bedford (Mass.) Spinning Co.** The plant, owned by Amory, Browne & Co., Boston, since 1925, has been sold to Jacob Genensky, who acted in behalf of New York interests. Machinery of the plant was sold in September to the Textile Machinery & Supply Co., Fall River, Mass. The property will be transferred to a corporation which will be organized shortly.

Harmony Mills, Cohoes, N. Y. Announcement has been made that 200 additional looms have been started at the Harmony Mills, in Cohoes, bringing the plant to about 90% capacity.

Pisgah Mills, Inc., Brevard, N. C., which have been idle for several weeks, will resume operations at an early date, according to those interested in the mill. W. C. Bobo, formerly general manager of Judson Mills, Greenville, S. C., will become president and treasurer.

***Hightower Spinning Co.,** Maiden, N. C., recently organized to take over the local plant of the **Sherwood Mills, Inc.,** is now operating at that plant. Present production schedule will be advanced in the near future. H. H. Heavener is president. The Sherwood Mills took over the **Liberty Spinning Co., Inc.,** last year.

Carolina Narrow Fabric Co., located in Waughtown, the industrial section of Winston-Salem, N. C., has purchased additional equipment, which will increase the company's output 50%, according to the statement of John A. Kester, president.

***Manville Jenckes Co.,** Woonsocket, R. I., operating under a receivership, has started to demolish the **Social Mill.** All machinery in the plant has been removed. Units to be torn down to save taxes on the idle plant, include a 5-story mill, 74x450 ft., weave shed, 150x800 ft., machine shops, boiler plant and other mill structures. A large part of the material will be salvaged. The contract calls for entire razing by June 12.

Waco (Texas) Twine Mills sold under receivership proceedings for $15,000 to satisfy bonds of $149,400 remaining unpaid and with interest due also remaining unpaid. The plant was purchased by R. B. Dupree of Waco in the interests of bondholders. The company is to be reorganized and the plant put into operation again in near future.

Wool

Hodgson Bros., Wilmington, Del., will soon occupy the building at Fifteenth and Walnut Sts., recently acquired from John Hand & Sons, Paterson, N. J., and will use for its main mill. Machinery has been moved from the old mill at Henry Clay Factory, near Wilmington. Production facilities will be increased at the new location.

American Woolen Co., Shawsheen Village, Mass. Of the 263 tenants occupying dwelling houses owned by the company in this model industrial village, 250 were notified last week of a 5% reduction in their rental rates, retroactive to Dec. 1. The rents of those not reduced are looked upon as low enough without a reduction.

Ware (Mass.) Woolen Co. will resume operations immediately, according to announcement made by Fulton Rindge, agent. Mr. Rindge said orders received promised operation on a full time basis, employing 250 hands.

Assabet Mills of the American Woolen Co., Maynard, Mass., which have been closed for about 10 weeks, reopened Jan. 11, giving employment to about 1,600 workers. It is understood that the mill, which is the largest in the woolen group of the American Woolen Co., has sufficient orders to maintain operations for an indefinite period.

M. J. Whittall Associates, Ltd., Worcester, Mass., have filed plans for a new producing unit. Action on the construction of the new plant has been deferred for the time being. J. D. Leland & Co., Boston, Mass., is the architect.

***Baltic Mill,** of the **American Woolen Co.,** Enfield, N. H., has been reopened and is employing about 150 workers.

Thomas Oakes & Co., Inc., Bloomfield, N. J., have been chartered under state laws, with a capital of 11,000 shares of stock, no par value, to take over and succeed to the company of the same name. New organization is headed by David and George A. Oakes, and Robert Stein, who has been superintendent at the mill.

***Alexander Smith & Sons Carpet Co.,** Yonkers, N. Y., is running on a full time production schedule after close to a year of part-time operations. The mill is on a six-day, double shift basis, giving employment to about 3,000 persons. Close to 500 workers have been added to the force during the last sixty days.

Asheville (N. C.) Weavers, manufacturers of hand-woven homespun, are offering a homespun suit direct to the individual for $35 for a limited time, according to an announcement just made by Ervin Swann, superintendent.

***Spotsadonna Mills,** Stuart, Va., recently incorporated, with S. A. Thompson as president, have taken over the **Patrick Mills, Inc.,** Stuart, which defaulted in the payment of their obligations several months ago and were sold by their creditors to the newly organized company. Patrick Mills made a part-wool blanket. Spotsadonna Mills have already resumed the operation of the plant and are manufacturing a new style of part-wool blanket.

Barron (Wis.) Woolen Mill Co., established in 1883, is going out of business. Back in the gay nineties each of a sales crew, from 18 to 30, started out with a wagon every fall to make the rounds, selling from door to door. In 1917 the wagon merchandising was discontinued and salesmen commenced selling from samples.

Knit

Knickerbocker Knitting Mills, 82 Third St., Chelsea, Mass., have started the manufacture of knitted sweaters and sport coats.

Harris Silk Hosiery Co., Springfield, Mass., is equipping its machines to knit heels of a new narrow tapering design and also a new style of top. Operations will be resumed on a capacity basis in about a week.

Travelo Corp., New York, which is an amalgamation of **Peckman-Foreman, Inc.,** and **Tartan Knitwear Mills,** Philadelphia, has moved its entire manufacturing facilities to Philadelphia.

Oswego (N. Y.) Rayon Corp. Certificates filed in the county clerk's office show that the **Oswego Underwear Corp.,** the **Pontiac Mills,** and the **Ontario Underwear Co.,** have been absorbed by the Oswego Rayon Corp. This will not affect the conduct of the business of the parent organization, as the stock of the companies already belonged to the Oswego Rayon Corp.

***Hoover Hosiery Co.,** Concord, N. C. The 50-gauge machines purchased some time ago have been set up and are now operating for the first delivery.

Adams-Millis Corp., High Point, N. C., has purchased 42 full-fashioned 42-gauge hosiery machines from the **Signature Hosiery Co.,** Philadelphia. This gives the company a total of 100 full-fashioned machines.

***Marion (N. C.) Knitting Mills, Inc.,** have completed plans and will proceed with construction of a two-story addition to main mill. It is proposed to increase production facilities by about 25%.

Nu-Craft Hosiery Mills, Inc., Mohnton, Pa., have been sold, although no announcement has been made giving the identity of the buyers. The company was incorporated in 1928 with a capital of $500,000. It manufactures full-

**Indicates previous mention of project.*

fashioned hosiery, operates 22 machines, and under normal conditions employs about 120 workers.

A. & G. **Knitting Mills, Inc.,** Philadelphia, Pa., recently organized with capital of $5,000, to operate a local mill, will be represented by Mark Ginsberg, 3028 West Euclid Ave., Philadelphia, treasurer. Morris Abel, 1948 North Patton St., Philadelphia, is interested.

Actual **Sportswear, Inc.,** Philadelphia, has been incorporated for the manufacture of women's knitted sportswear, and will use the entire third floor at 878 North Pennock St. Maurice Rubinger, who designed and created the women's wear line of the Braeburn mills, is president of the new company. Machinery is being installed.

Braeburn **Knitting Mills, Inc.,** Philadelphia, manufacturers of sweaters, etc., have leased the third floor of the factory building at Wyoming and B Sts., totaling 11,000 sq.ft. floor space. This is a reorganization of the former company of that name.

Penn Hosiery Mills, Inc., Reading, Pa., a Pennsylvania corporation, formerly operated under the name of **Penn Hosiery Mills,** will be operated by the following officers: D. W. Dietrich, president; Emanuel W. Loeb, vice-president; Charles I. Endy, secretary; and Benjamin W. Loeb, treasurer.

Fisher Hosiery Co., Inc., Reading, Pa., will hold a special meeting of stockholders Jan. 22 to obtain permission for a merger with the **Triangle Textile Co.,** Reading, Pa., the name of the consolidated companies to be the name of the first. Frederick M. Fisher is secretary of the Fisher company, and E. M. Fisher is secretary of the Triangle company.

**Indicates previous mention of project.*

Silk

National Silk Label Co., 795 Washington St., Boston, is manufacturing labels for the use of clothing and mattress manufacturers.

***Kattermann & Mitchell Co.,** Paterson, N. J. G. H. Hacker, who is in charge of the Stanley (N. C.) and Laurens (S. C.) plants of this company, recently completed negotiations for the purchase of a building at Columbus, N. C., formerly occupied by the **Appalachian Hand Weavers.** This modern brick building, which was purchased from F. P. Bacon and W. C. Ward, of Tryon, N. C., will be occupied by a silk throwing unit. It is expected that operations will be started about March 1.

Marillyn Silk Mills, Inc., White Mills, Pa., have been organized under state laws with a capital of $50,000, to take over and succeed to a local company of same name. Adolph H. Klein will continue as president, and Max A. Bornstein, treasurer.

Finishing

Waldrich Bleachery, Delawanna, N. J., has given up the finishing of cotton goods, and is confining its work to acetate, all-rayon and silk fabrics.

Bertram Goldberg, Inc., Johnstown, N. Y. New York offices and wareroom were opened the first of the year at 30 East 30th St., as part of an expansion program for 1932. Additions to the plant equipment have been made recently.

Sayles Biltmore Bleacheries, Inc., Lincoln, R. I., have been chartered under State laws with a capital of $100,000, by officials of the **Sayles Finishing Plants, Inc.,** Saylesville, R. I., to take over and succeed to a company subsidiary of the same name operating at Biltmore, N. C. Robert E. Jacobson, Providence, R. I., is one of the incorporators.

Service Prints, Inc., Warwick, R. I., recently organized and now operating a dyeing and printing plant in a part of the former local Elizabeth Mill, has taken out a State charter.

TEXTILE WORLD Cotton and Wool Index Numbers

WOOL INDEX NUMBERS

Date	Wool	Tops	Yarns	Cloth	Group Aver
July 31, 1914	100	100	100	100	100
1925					
January	215	213	211	229	221
April	219	234	230	241	235
July	216	217	216	239	227
October	216	212	212	227	220
December	216	215	216	229	222
1926					
January	215	213	211	229	221
April	181	193	198	211	202
July	173	184	189	202	193
October	178	186	193	197	192
December	177	186	191	197	192
1927					
January	178	187	190	197	191
April	177	182	184	193	188
July	180	183	183	193	188
October	185	185	189	194	190
December	190	187	186	195	191
1928					
January	194	193	186	195	192
April	199	206	198	198	199
July	204	206	203	197	200
October	197	197	203	198	199
December	199	198	201	198	199
1929					
January	199	198	201	198	199
April	187	189	198	197	195
July	169	170	188	197	188
October	164½	169	188	197	187
December	156	163	182	211	190
1930					
January	148	161	177	197	181
April	127	139	164	186	167
July	125	135	158	184	163
October	124	135	154	180	161
December	119	131	154	200	169
1931					
January	112	127	148	178	156
February	106	122	143	178	153
March	101	112	139	174	147
April	101	112	134	167	143
May	100	111	134	162	140
June	97	110	134	162	140
July	98	111	134	162	140
August	99	111	130	153	136
September	99	110	127	153	134
October	97	108	127	147	132
November	94	108	127	147	130
December	94	106	127	147	130

A FEW of the conclusions to be drawn from the TEXTILE WORLD Index Numbers for 1931 follow in brief:

(1) The low for each commodity was touched or equalled in December.

(2) The relative stability shown by the wool and colored goods indexes.

(3) The large losses registered by cotton, gray goods, and wool cloths.

(4) The spread between the raw materials and their manufactures tended to narrow as the year progressed, and manufacturing margins at the close of the year were generally less satisfactory than in January.

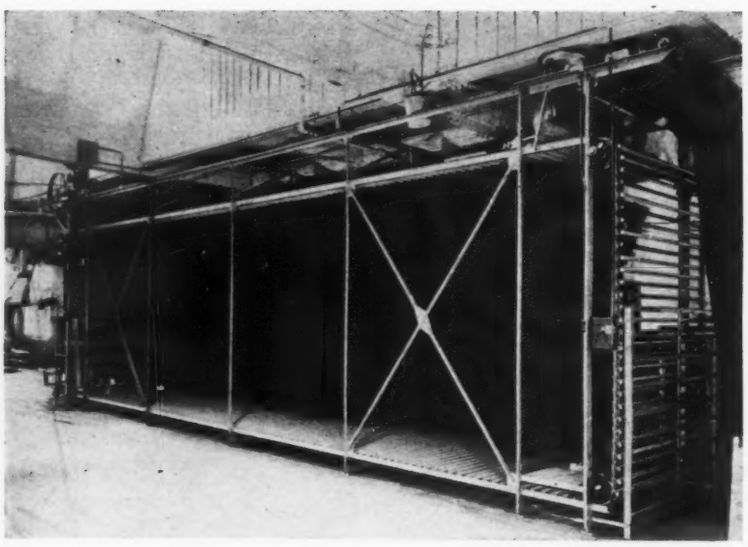
The wool index at 94 for December was but 18 points below the January level, and but 3 points lower than it was in June. Wool tops at 106 registered the year's low in December and were 21 points below the January level. Worsted yarns at 127 were 21 points below January. Wool cloths indicated the greatest loss, the December index of 147 being 31 points down.

The raw cotton index of 50 was at the year's low, and showed a drop of 32 points from the January index of 82. Cotton yarns at 79 touched a new low in December and were off 23 points from January. Gray goods were the weakest link in the cotton series; the December index of 71 was a new low and was 36 points below the January index of 107. The colored goods index was off only 12 points, partly due to the inclusion in this index of less active and barometric cloths.

COTTON INDEX NUMBERS

Date	Cotton	Yarns	Gray Goods	Colored Goods	Aver. for Cloths	Group Average
July 31, 1914	100	100	100	100	100	100
1925						
January	192	197	195	173	184	187
April	196	194	193	180	187	188
July	197	183	185	176	181	182
October	174	189	193	178	186	186
December	161	176	179	170	175	174
1926						
January	167	175	177	162	170	171
April	153	163	161	155	158	159
July	149	149	151	141	146	147
October	106	141	147	144	146	143
December	101	135	139	141	140	137
1927						
January	107	134	140	140	140	138
April	118	136	143	142	143	140
July	143	149	156	145	151	150
October	168	176	184	169	176	176
December	157	165	169	167	168	167
1928						
January	151	163	166	166	166	165
April	164	160	160	165	162½	162
July	174	167	165	168	166½	167
October	157	161	162	164	163	162
December	164	167	162	165	164	164
1929						
January	162	166	158	169	163½	164
April	163½	164	157	173	165	165
July	149	160	149	166	158	158
October	147	160½	155	161	158	158
December	138	154	142	159	151	151
1930						
January	138	149	141	157	149	149
April	131	139	129	156	143	142
July	105	120	119	142	130	128
October	85	110	115	125	120	117
December	80	106	109	127	118	114
1931						
January	82	102	107	*124	115	112
February	88	104	106	124	115	112
March	87	102	109	125	117	113
April	82	100	106	125	116	111
May	75	98	99	125	112	108
June	72	94	95	122	109	104
July	75	97	97	120	109	105
August	58	90	87	115	101	98
September	53	85	81	113	97	94
October	50	84	76	112	94	90
November	52	84	74	112	94	90
December	50	79	71	112	92	88

New Machinery *and* Processes



Festooning machine for shrinking cloth by natural means

Cloth-Shrinking Machine

FOR the purpose of shrinking cloth which can be best treated without the application of tension, the Philadelphia Drying Machinery Co., Philadelphia, Pa., has developed what is known as the Hurricane automatic festooning machine.

Upon entering the machine, the material is automatically festooned over the poles of a slowly moving conveyor, which carries it the length of the frame. At this point it may be either delivered to another machine in range or automatically folded or rolled on a batcher.

It is asserted that the feeding and looping device is so constructed that the material can be fed steadily in a flat, open condition without inviting the formation of wrinkles or marks. To insure further that the material will be delivered in a smooth, straight, and wrinkle-free state, the conveyor is usually equipped with revolving poles, so that no one portion of the material remains in contact with the poles during the trip through the machine. In addition to this, it is pointed out that the revolving poles insure that the material dries and shrinks uniformly, the position of any portion of the material with respect to the festoons being gradually changed as the festoons travel forward. The machine is designed to provide slow, natural drying, without employing heat or air circulation. However, for certain fabrics it is desirable to dry the material more rapidly and with the aid of heated air. When such is the case, the festooning machine may be housed with insulated panels and equipped with steam coils and fans to provide heating and air circulation.

Equipment is also provided for steaming and wetting the goods before they enter the machine. After passing over the steam chamber and through the wetting-out tank, the goods are usually delivered to a vacuum extractor, which removes the excess moisture. The vacuum extractor in turn delivers either directly to the machine or to a spray in front of it. It is pointed out that in some cases it is advisable to pass the goods over hot cans for removing the final 10 or 15% of moisture and for improving the finish and insuring that no wrinkles or creases remain.

Either 4- or 6-yd. loops may be made, and it is asserted that the machine may be filled with 550 yd. of loops in 20 min.

Emulsifying Agents

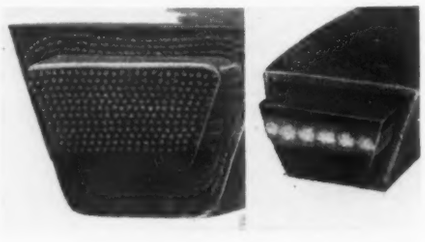
DIGLYCOL oleate and diglycol stearate, two new products secured by the esterification of poly-alkyl glycols with oleic and stearic acids, are announced by Glyco Products Co., Inc., Brooklyn, N. Y.

The former is described as a brown, oily liquid having a marked odor. It is insoluble in water but soluble in alcohol, esters, and hydrocarbons. It is said to act as a softener for rubber, resins, and varnish gums. Delicate colors and fibers, it is asserted, will not be affected by this product, as it is permanently non-alkaline. Its solubility in naptha and other dry-cleaning solvents makes it of interest in dry cleaners' soaps. With the addition of a small amount of alkali, it is said to make good oil-in-water emulsions.

Diglycol stearate is an almost white, wax-like solid melting at 58° C. It is somewhat soluble in cold alcohol and hydrocarbons, and is said to be very soluble when heated above its melting point. Being free from alkalies and amines, it is useful as an emulsifying agent. It disperses in water heated to 60° C. or over, and a 3% dispersion gives a viscous, milky, stable fluid. A 10% dispersion is described as producing a soft, white cream or paste. Emulsions made with these esters are recommended for application to cotton, wool, and rayon for lubrication purposes or to develop flexibility and luster.

V-Belt Construction

A V-BELT with no inelastic stretch has been developed by engineers of Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., Passaic, N. J. This is accomplished, they explain, by departing from the practice of using one general construction for



New type of construction in V-belts

all sizes of V-belts. In light-duty, high-speed sizes, a flexible "whipcord" construction is used; and for heavy-duty service, a more rugged design known as "Plycord" is employed.

The whipcord type consists of one layer of continuously wound cords imbedded between two layers of tie-gum. The balance of the belt is filled out with extensible and compressible rubber, with a closely-woven rubberized duck cover to complete the structure.

Condor Plycord is designed to do heavy-duty work and is made up of continuously wound plies of cord with one layer of tie-gum between each. When built up to the right thickness and correct number of plies, it is cut to the correct angle of the belt. The balance of the construction is similar to Condor Whipcord.

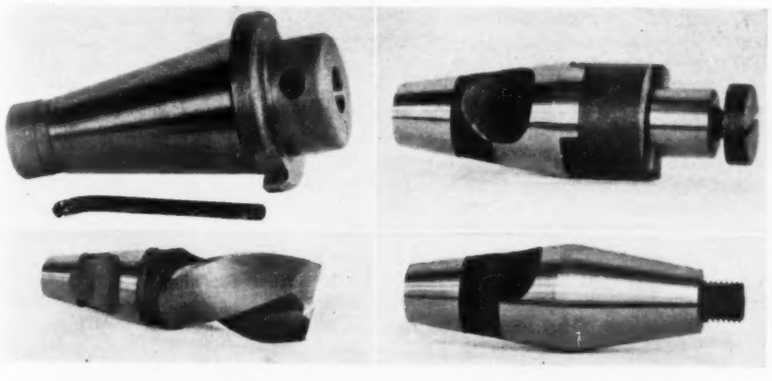
Eight advantages are claimed for these new belts as follows: wide margin of strength, no inelastic stretch, uniform flexibility, no structural breakdown, smooth running throughout life, maximum traction, slow side wear, and stiff lateral reinforcement.

Milling Machine Attachments

ANNOUNCEMENT is made by Brown & Sharpe Mfg. Co., Providence, R. I., of the development of a new line of cutter adapters, spiral two-lipped end mills, arbors for shell end mills, and screw arbors for use with these adapters.

The adapters are furnished in two different styles for use with milling machines having standardized spindle end, and also in one style for use on milling machines having taper-or threaded-nose spindle. The adapters are furnished with a milling machine standard taper hole into which the shank of the end mill or arbor fits.

The end mill or arbor is held to its seat by a cam, furnishing a positive drive. The surface of the cam engages the flat surface of the groove in shank of cutter. When the cam is turned to release it, the cutter or arbor drops from the adapter, the steep taper being designed to prevent sticking and insure quick release. These adapters, arbors and end mills are furnished in a convenient range of sizes.



Group of milling machine attachments

Lighting Control Relay

DEVELOPMENT of an indoor lighting control relay, designated as CR7505-D3, is announced by General Electric Co., Schenectady, N. Y. It is designed to automatically turn artificial lights on or off within a room or building, depending upon the light intensity.

Photoelectric and pliotron tubes are employed. The auxilliary equipment includes two potentiometers which can be adjusted from the front of the enclosing case, a sensitive relay, and a normally open contactor with two insulated single-pole interlocks.

If the potentiometers are set at the proper position, then when the room or building light intensity decreases to that corresponding to the setting of the "intensity" potentiometer, the equipment will operate to turn on the artificial light.

To turn the artificial lights off, the outside daylight must increase the total illumination in the room to a predetermined point which is above the light intensity when only artificial light is available. The equipment will then operate again, picking up the sensitive relay which, in turn, short circuits the coil of the contactor through a resistor, thus allowing the contactor to open and turn off the light. At the same time, the original sensitivity of the unit is restored.

Light-control unit for indoor use, automatic and adjustable

New Dyestuffs

General Dyestuff Corp., 230 Fifth Ave., New York, has announced the following new dyestuffs:

INDANTHREN BRILLIANT ORANGE GR double paste, a homogeneous dyestuff recommended for dyeing cotton, linen, and rayon. In shade it is between the well-known INDANTHREN BRILLIANT ORANGE GK and RK brands, surpassing both in tinctorial strength and beauty of shade. Since the fastness to light of the new dyestuff is very good, it is specially suited for dyeing curtains and hangings. On account of its excellent fastness to washing and very good fastness to boiling, it may also be recommended for wash styles. Because of its excellent fastness to chlorine, very good fastness to peroxide, and good fastness to boiling soda, this color may be used for goods which are required to stand bleaching in the piece, provided the usual precautions are observed. INDANTHREN BRILLIANT ORANGE GR is also of interest for dyeing mixed fabrics of cotton and viscose. It dyes both fibers to a very uniform shade.

FASTUSOL BLUE 3R, a homogeneous, well-leveling direct dyestuff which gives a clear, reddish blue on cotton, linen, rayon, and other vegetable fibers was hitherto not represented in the FASTUSOL range. In fastness to light, the new product is on a level with other FASTUSOL colors. Dyeings possess very good fastness to water and perspiration, and also good fastness to washing. Mixed fabrics of cotton and viscose in pale to medium shades are dyed almost alike. In Union dyeing, FASTUSOL BLUE 3R is suitable for covering the cotton. Dyed at 160° F. with the addition of Katanol WL, the wool remains almost white. When dyeing union silk mixtures, the silk, in the glauber salt and soap bath, is only very slightly tinted. It is also suitable for dyeing mixtures containing acetate yarn which is required to remain as pure as possible.

CELLITON FAST NAVY BLUE BR powder, a new dyestuff for cellulose acetate. Dyed from a soap bath, it yields full navy blue shades which are more covered than those obtained with CELLITON FAST NAVY BLUE B, and redder than those obtained with GT brand. Besides very good affinity, the dyestuff possesses good to very good fastness to light, and good fastness to water, washing, scrooping, and acid. In pale shades, CELLITON FAST NAVY BLUE BR may be used to advantage as blue component on compound shades. The dyestuff is not recommended for direct and discharge printing.

Questions . . . *and* Answers

Removing Black Oil from Draperies

Technical Editor:

I was interested in reading the article on dry cleaning in the Nov. 21 1931 issue of TEXTILE WORLD. *With reference to this, it has occurred to me that you might recommend something to take black oil out of draperies. I have been using benzine and ether, 50/50; but it does not remove the stains. If you know of any remedy for this stain, I should appreciate your informing me of it. (7777)*

We assume that you desire to remove lubricating oil which has become blackened from metallic particles that have worn off the various bearings. If this is the case, and the stain is not loosened and removed by means of ether and benzine, we suggest that the stains be treated with red oil, otherwise known as oleic acid.

A glass plate is placed beneath the fabric. The red oil is dropped on the stains with a medicine dropper. The oil is then rubbed into the spots by means of a smooth glass rod. Dilute ammonia is then rubbed into the red oil and stain. This will saponify the red oil and convert it into a soap. The soap, stain, and oil can then be washed out with warm water.

However, if you refer to drapery fabric made on a lace-curtain machine, the nature of the black oil is different. It is not oil, but graphite or carbon; and a different method of removal must be followed. In this case, the material is first wet out with cold water, in a "Tom-Tom" machine. The usual batch is 100 lb. Two or three pails of a soft, liquid soap containing acetone is added to the Tom-Tom; and the material is worked cold in this solution for an hour. The ends are cut, and the goods submerged beneath the surface of the solution and allowed to soak overnight.

In the morning the ends are picked up and sewed together. A few pails of olive soap-oil and one pail of trisodium phosphate are added, and the temperature is raised to 120° F., the material being scoured for 1 hr. The scouring liquor is saved, and the material is transferred to another machine and rinsed with warm water. Any spots not completely removed are treated by hand with a little of the straight solvent soap and are then washed out by hand in warm water.

The scouring solution is saved, and to this is added more of the solvent liquid soap containing acetone. Subsequent lots are treated with this solution, being soaked overnight and scoured the same way in the morning, with the addition of soap and trisodium phosphate. If the temperature of the scouring bath is too high, the graphite will settle out of the solution and deposit itself on the rolls, sides of the machine, and elsewhere.

In the article to which you refer, it was mentioned that a hosiery manufacturer sent a trial lot of oil-stained hosiery to a dry cleaner. Since the results obtained by dry cleaning were satisfactory and the cost of processing reasonable, the manufacturer contracted with the dry cleaner to perform this operation for him. It is quite possible that you might find a similar arrangement advantageous, and we suggest that you send a trial lot of the oil-stained drapery fabric to your local dry cleaner.

▼

Yarns for Women's Hose

Technical Editor:

We want to make an all wool, wool and silk, or wool and fine rayon full-fashioned women's stocking on a 42-gauge machine. We can knit single 40s Botany yarn successfully as far as weight is concerned, and put silk striping in heel and toe; and while this stocking is about the weight we want, its appearance, on account of being made from a single yarn, is very uneven. We want a hose that we can sell at around $7.50 to $8.00 per doz. Can you advise us what yarn would be suitable for making what we want? (7759)

We believe that a French-spun worsted yarn will give the results desired in the 42-gauge all-wool stocking. A 42-gauge all-wool stocking is rather unusual, and the effect of evenness is secured in finishing. The goods should be subjected to a fulling process to cover up the thick and thin places somewhat.

For a wool-and-rayon mixture hose we suggest the use of a yarn formed by twisting one thread of 60/1 French-spun worsted and one end of 75-denier rayon. This yarn would not be excessive in cost and would produce a stocking of even texture.

▼

White Lines in Silk Crepe

Technical Editor:

Will you kindly examine the enclosed sample of silk crepe and let me know as soon as possible what is wrong? You will notice small white lines on the crepe side. This filling is nine-thread 20/22, 50/55 turns white silk. (7788)

We have examined this sample and find that this white-line defect is found mostly on one twist. Although the twist is somewhat irregular, this defect should be overcome in the dyeing. It is our opinion that white lines were caused by faulty dyeing. We found that the dye had poor fastness qualities, as we had very little trouble in stripping the sample. We are returning the same sample redyed, and you will notice that the white lines have disappeared. We also suggest that you exercise more care in weaving this fabric, as there were numerous oil and grease stains.

▼

Soaking Japan Silk

Technical Editor:

Will you kindly give us some information in reference to soaking Japan, 13/15-denier hosiery tram, listed as Crack XX 83%. We should like to know approximately how many gallons of soft water should be used in soaking a bale of silk. If a formula calling for 85 gal. water were changed to 100 gal., would that have any different effect on the silk? If a soaking formula calls for a temperature of 85° F. and the temperature of the soaking bath is 100° F. when silk is placed in it, what effect would that have on the silk? What do you consider to be the highest temperature at which a soaking solution can be maintained without loosening the gum on the silk? What do you consider the maximum percentage of the following soaking materials to be used for one bale of silk: olive-oil soap and olive oil, olive-oil soap and neats-foot oil?

How many hours is considered the minimum time for soaking, soaking to be done in tubs? Would there be any benefit in soaking silk for 24 hr. instead of just overnight? What do you consider the best method for drying silk, putting the skeins on racks in a room, or putting them in a steam dryer? How many hours do you consider silk should age in a conditioning room, the silk being wound over emulsion troughs with a humidity set at dew point in conditioning room? Can you tell us what action the following chemicals have in soaking: olive-oil soap, olive oil, neats-foot oil, borax, soda ash, and common salt.

What is the action of sodium carbonate and potassium carbonate on silk. What would you advise to make silk more hydroscopic? (7791)

It is usually considered that the proper bath factor for silk soaking is five times the weight of the silk, approximately 500 lb., or 60 gal., for a 100-lb. batch. By increasing the water to 100 gal. in a formula made up for 85 gal., you would have a much different effect upon your silk, since that would dilute your bath 17 to 18%. A fat determination of both the 85-gal. and 100-gal. bath would show that. It has been proved that too large a water factor is detrimental to silk because it allows it to float too much.

A soft-natured silk would have the gum loosened by immersion at 100° F., while a hard-natured silk would be exactly correct for good winding.

Soaking temperatures have to be regulated according to the nature of the raw silk. The soaking formula also has vital bearing on the whole matter; too much soap, together with a temperature of 100° F., would raise havoc with a soft-gum silk.

A good formula for a 23% boil-off on a full bale of silk is 16 lb. of neats-foot oil, or olive oil (acidity not over 5%) and 5 lb. of 90% olive-oil soap to 80 gal. soft water. Results obtained with neats-foot and olive oil are about the same, as long as the acidity is not over 5%.

The minimum time of soaking in a tub is 10 hr. While no bad effects come from a 24-hr. soaking, nothing is gained, since the take-up and softening is complete in 10 hr.

Air drying at a temperature of 100° F., with circulating and exhaust fan is usually recommended. The skeins are placed on racks, wheeled into a drying room at the temperature indicated, and allowed to remain there for 4 hr. They are then ready to be placed on the winding swifts.

Silk should be conditioned for 6 to 12 hr. after it has been backwound over emulsion troughs. The time varies with the twist and the composition of the emulsion used in the trough.

Olive-oil soap has a softening and penetrating action on the silk gum. The concentration of soap in a soaking bath must be correct; otherwise desirable results are not obtained.

Olive (or neats-foot oil) forms a layer around the fibers and helps to prevent them from becoming matted together in the winding operation; it also lubricates the thread.

Borax is used when hard water is present; when softened water is available, borax is not needed. Soda ash softens hard gum spots. These are more common in China than in Japan silk. Common salt is sometimes used to cause the bath to separate. Many throwsters believe it is not good practice to employ salt, since uneven soaking, wet bobbins, and fixation of tints are sometimes brought about.

Sodium carbonate (soda ash) and potassium carbonate are alkalis similar in chemical action. Either must be carefully used to avoid disastrous results in a hosiery tram.

Glycerin, ethylene glycol and diethylene glycol are among the chemicals which have been employed to make silk more hygroscopic.

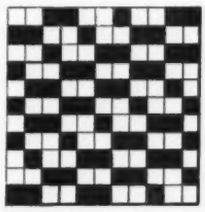
▼

Barathea Weave

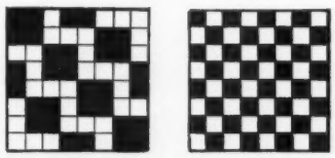
Technical Editor:

Will you kindly advise me just what is known as the Barathea weave and give me a sketch illustrating it. (7741)

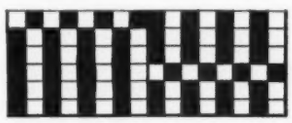
The term "barathea" does not signify weave alone but rather a combination



A



B (face) *C (back)*



D

of special fibers, fabric, and broken order of thread insertions. Numerous types of fabrics have been marketed from time to time under this appellation, but the original and authentic cloth appears to be really a fine dress fabric constructed on the following lines: Warp, 60/2 spun silk, 64 threads per inch; filling, 72s Botany, 156 picks per inch; weave *A*.

In the finishing process this cloth is drawn out in length and shrunk in width, in order to show the filling as much as possible on the surface.

A cotton-warp version of the fabric described above is as follows: 2/60s cotton warp, 56 threads per inch; 72s Botany filling, 160 picks per inch; weave *A*. Finish as above.

The term barathea is also applied to a heavy military double cloth woven in worsted yarns arranged two face and one black in warp and filling with weave *B* (twilled hopsack) on the face and weave *C* (plain) on the back.

Again, a class of cotton shirting made in a broken warp rib, weave *D*, is known on the market as barathea.

For all practical purposes, any fabric made on a union basic construction; i.e., using two or more different fibers, with a predominance of picks of a finer count than warp, employing a broken filling-rib weave, and finished as already outlined, may accurately be classified under the term of barathea.

Inquiries should give the fullest information possible; and if damaged material is involved, a sample should be sent. We give no consideration to anonymous inquiries and do not undertake routine analysis of yarn or fabric, or investigation involving unusual expense.

▼

Finishing Flannelette

Technical Editor:

I am sending you two specimens of flannelette, marked respectively A and B. You will notice that product A distinguishes itself by a superior velvety touch. My problem is in obtaining that effect on product B.

The count of ends and picks in both specimens is practically the same. However, A uses 20s, and B 24s for the warp, while the A filling is estimated at 10s, the same as in B.

Under the magnifying glass it appears that the fibers of filling A when taken from the fabric retain a wool-like curling, much better than those of filling B. In addition, they seem to be of a little longer staple. The filling of specimen B is of a good middling Louisiana stock.

Can you ascertain the source and designation of the filling raw material in product A and whether its curling and "filling" quality has been obtained by mechanical means? If so, please give me a rough idea of the process needed to produce the fine handle exemplified in exhibit A. (7771)

From an examination of the samples of flannelette submitted, it appears that the only difference lies in the finishing. The construction seems to be the same, and there seems to be no difference in filling twist. Theoretically, therefore, piece *B*, having the finer warp, should make the better piece of goods as far as appearance goes. The sample designated as *B* really has a much smoother appearance, but if the finish shown by *A* is desired, we would suggest that you put a little heavier nap on sample *B* and that you do not cut off or make the nap shorter in the felter.

If you will give sample *B* one run on each side on the breaker napper, then give it one run through the steam press, allowing live steam from a perforated pipe to penetrate the cloth as much as possible, and follow this by two runs each side on a 36-roll machine (or four runs each side on a 22-roll machine), and finish with two runs each side on the felter, we believe you will have a very fine finish. Further improvement may be obtained by giving the fabric one light run through a wool calender.

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Bleached ▲▲
Colored
and Mercerized
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◆ *Survey of Fabric, Knit Goods, Yarn and Raw Material Markets* ◆

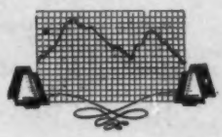
TEXTILE WORLD ANALYST

Silk Prices Likely to Continue Weak and Irregular

By Dr. L. H. Haney

SUMMARY

As the spring outlook for silk textiles continues uncertain and the visible supply of raw silk is very large, silk prices are likely to continue irregular and weak. New lows are easily possible, but no one can say what silk is worth.



ABOUT all one can say concerning the silk market is that it seems impossible that much rise can occur during the next two months, while it is easily possible that further declines may occur. The uncertainties of the monetary conditions, both in Japan and in this country, make it unwise to attempt to say more. We merely note that the conditions which caused the decline in the yen are not over and that silk producers in Japan appear to be in bad shape. The yen may, therefore, go still lower. In that case a dollar would exchange for more yen, and exports to United States be stimulated. This would put further pressure on our market.

Bull Points

1. World production of raw silk in December was 6.7% below a year ago; for the season to Dec. 31, the decrease amounted to 2.4% (National Raw Silk Exchange).

2. Japanese production of raw silk in December was 2.9% less than a year ago.

3. The total world supply-and-demand ratio was slightly favorable in December, as was also the ratio for Japanese silk.

4. Withdrawals of raw silk from domestic storage increased in December, after allowance for a normal seasonal decline.

5. Imports of raw silk in December were less than in November, and were 21.7% below a year ago.

6. Spindle activity failed to make the usual November decline, and the ratio of "deliveries" to spindle activity declined in October and November.

7. Narrow loom activity increased as compared with a normal decline in November.

8. Dollar sales of silk goods in New York at wholesale increased more than usual in November. Yardage sales also increased.

9. Stocks of silk goods at wholesale were 11.0% below last year at the end of November.

10. The new Japanese cabinet is reported to be in favor of withholding custody silk.

11. Silk is cheap compared with raw wool or cotton.

Bear Points

1. The total world visible supply of raw silk rose to a new record high at 276,960 bales.

2. The world consumption of raw silk in December was 17.9% below a year ago. World consumption for the season declined 8.7%.

3. Production of Japanese raw silk for the season was 4.2% above 1930-1931.

4. The stocks of raw silk in New York and Yokohama increased slightly after seasonal adjustment.

5. The stocks of raw silk at New York were the highest for any December, except 1929, on a 12-year record.

6. The quantity of silk in transit was 52,700 bales at the end of December.

7. Broad loom activity suffered a sharp decline in November.

8. "Deliveries" were large compared with the composite machinery activity in October and November.

9. European markets are very dull; filatures are closing.

10. Japan off gold basis; drop in yen exchange not offset by rise in silk prices in Japan.

11. Reports indicate a probable cut in the price of rayon yarns.

November operations fell off, but reports indicate that December activity held fairly well. Supplies, however, are growing more burdensome and mills appear to be covered for nearby requirements. Silk prices are likely to fluctuate with yen exchange and rally technically with security markets, but no sustained recovery is in sight, and new lows must still be considered possible.

Statistical Position

Stocks of raw silk at New York on Dec. 31 were the largest that they have been for any December, except December, 1929, since the series began in 1920. At the current rate of deliveries to mills, stocks of raw silk are also comparatively large, but not so large as in December, 1929, or December, 1924. Compared with stocks of a year ago, there has been an increase of 18.9%. In addition to the increase in stocks in December there has been an increase of 1,900 bales in the quantity in transit, which indicates that there is pressure to sell silk abroad or that manufacturers are desirous of building up reserves at low prices.

Imports of raw silk in December (as reported by the Silk Association) were less than in November, and were 21.7% below last year. The ratio of imports to deliveries in December was the smallest for the month since 1928.

The "deliveries" were estimated at 48,432 bales in December. This figure represents the imports of 50,617 bales less the 2,185 bales that were added to storage. The "deliveries" were 4.4% less than in November and 12.6% below December 1930.

The world visible supply of raw silk rose to a new record figure of 276,960 bales. This compares with 268,875 bales in November, and 237,030 bales a year ago. All of the increase was in Japanese silk. Of the total, 154,800 bales were in Japan. This represented a gain in the "free stocks" at Yokohama and Kobe of 4,000 bales.

Our seasonally adjusted index of the combined stocks of raw silk at New York and Yokohama, following a decline since the middle of last Summer, rose fractionally, while machinery activity declined in November. Naturally this represents an increased discrepancy between stocks and consumption.

Accordingly, it is not surprising that

This analysis and forecast by Dr. Lewis H. Haney, Director, New York University, Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week. The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.

Style fabrics must keep pace with fickle fashion

Styles change rapidly, without rhyme or reason. If style fabrics are to earn full profit they must follow right on the heels of market trends. Speed is essential, and weavers or knitters who spend just a little too much time in getting the right yarns often miss their opportunity.

Quissett is attuned to the lightning changes of style. Many times we have supplied special yarns within 24 hours . . . and have enabled weavers to put their goods on the market ahead of all others. Crepe yarns, cotton backed sateen yarns, twister cords, slub stripes, Quitex Spun Rayon, and a host of other special yarns to suit the fabric you're planning—all of typical Quissett quality, uniform and right in twist.

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Edward H. Cook, Treas.
Thomas F. Glennon, Agent

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Our Quotations based on
Cost + a reasonable profit

QUISSETT
Cotton Yarns
AND
Quitex Spun
Rayon

we find silk at new low record levels in December and early January.

Activity Less in November

The hesitation which was evident in the indexes of machinery activity in the silk industry during October developed into a setback during November. Withdrawals of raw silk from storage fell off during December, but the decrease was less than normally occurs during that month, and our seasonally adjusted index recovered part of the November loss. The adjusted index of "deliveries" was 105.2% of the average for 1927-29, against 101.1% in November, and 120.3% a year ago.

The activity of silk spindles held about unchanged in November, but after allowing for the usual small decline the adjusted index of spindle activity rose slightly. The decline in the index of November deliveries and the rise in the index of spindle activity caused another decline in the ratio of deliveries to spindles. In spite of two consecutive declines, however, this ratio is still above the average for recent years, and suggests that mill takings of raw silk have exceeded the amount of silk consumed. It would follow that mills are comfortably covered with supplies of raw silk.

The seasonally adjusted index of broad loom activity declined sharply in November, which brought it down to the level of last August. The ratio of "deliveries" to broad loom activity, therefore, rose to the highest level it has attained since December 1931, and this apparent maladjustment offset apparent improvement in the ratio of deliveries to spindles. Probably there has been little change during the past few months in the relationship between deliveries and a composite of silk machinery activity. Our conclusion is that mill stocks of raw silk increased in October and November, and that unless machinery activity increased sharply in December, which is not likely, a further rise in mill stocks probably occurred.

Silk Sales Improve

The statistical position of silk goods appears to be stronger than a month ago, as a result of curtailed production and larger sales. Many are looking forward to a fairly large spring business which may be stimulated by low prices and small inventories of silk goods. Piece goods business, however, is dull and it looks as though hesitation caused by declining prices for silk textiles is still to be confronted. The severe decline in dollar prices for raw silk will lead to a demand for concessions in silk goods prices.

The dollar value of silk goods sales at wholesale in New York increased moderately during November, but was smaller than the sales in September or in November, 1930. Yardage sales declined less than usual compared with October, but were 4% below last year. Although seasonally adjusted indexes of sales, both in terms of value and yardage, showed an increase in November, this gain was relatively small in comparison with the sharp drop which occurred in October.

Curtailment of broad loom activity took place during October while sales were improving, the statistical position of silk goods is thus being somewhat strengthened. Moreover, stocks of silk goods at wholesale were 11.0% below last year and showed no more than a seasonal gain over October. The reason why the November decline in stocks from a year ago appears to be so moderate lies in the fact that the November, 1930, figure showed a sharp decline.

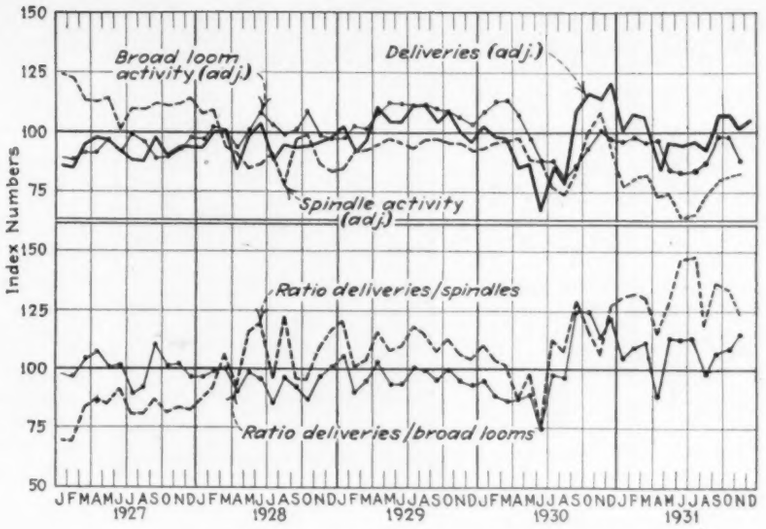
Broad loom activity (adj.)
Deliveries (adj.)
Spindle activity (adj.)
Ratio deliveries/spindles
Ratio deliveries/broad looms
Index Numbers
150
125
100
75
50
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1927
1928
1929
1930
1931

FIG. 1. INDICATED SILK CONSUMPTION

Deliveries—bales: Spindle Activity, Broad Loom Activity—per cent of normal machine hours operated. All three indexes adjusted for seasonal variation. Ratio of Deliveries to Spindles and Ratio of Deliveries to Broad Looms based on above indexes. Average of 1927-1929 = 100 for all indexes. Source: Silk Association of America

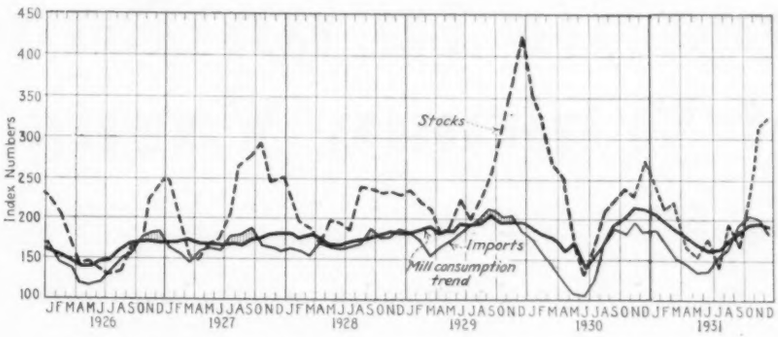
Stocks
Imports
Mill consumption trend
Index Numbers
450
400
350
300
250
200
150
100
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1926
1927
1928
1929
1930
1931

FIG. 2. STATISTICAL POSITION OF RAW SILK

Stocks of Raw Silk, Bales in storage at end of month. Average 1921 = 100 (Silk Association of America). Imports, Pounds. Average 1921 = 100. Three months moving average (Dept. of Commerce). Last month estimated by converting each item of Silk Association figures from bales to pounds and then applying the per cent increase to preceding month. Factory Consumption, Trend, Deliveries—Bales, average 1921 = 100. Five months moving average (Silk Association of America)

Market Briefs

Cotton: ***Small advance brought out southern selling which checked the upturn.***

Cotton Yarns: ***Much improvement in inquiry but prices are still wholly unsatisfactory.***

Cotton Goods: ***Brisk trade in print cloths with rising prices gives new confidence to market.***

Wool: ***Scant business but holders are firm on prices.***

Worsted Yarns: ***Scattered small orders, while consuming trades await business in their products.***

Woolen Goods: ***Worsteds active "at a price;" spring outlook only fair.***

Silk: ***Firming brings 5 to 10c. advance.***

Silk Yarns: ***Thrown yarns in good call; spun silk quiet.***

Silk Goods: ***Pure-dye crepes favored; prints softer.***

Rayon: ***Crepe weavers buy 100-150 den. yarn spiritedly.***

Knit Goods: ***Underwear prices for 1932 will be cut 8 to 12½% by ribbed group Feb. 15; mesh hosiery selling steadily; swimsuit mills curtail.***

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CHINESE SCULPTORS » » » SPENT YEARS IN THEIR SEARCH FOR PERFECT JADE » » »

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Uniformity in the yarn you use, from batch to batch, and from season to season, is one very real contribution we can make to the consistent efficiency and economy of your production. • The uniformity of Whitman Yarns is no mere phrase. It is a rigid standard that has been maintained for many years. Unusual care in the selection of raw materials is the first step. All purchases of cotton and wool are held not only to specified trade classifications, but also to the even more exacting standards set by the mills themselves. • Furthermore, each of the mills in the Whitman group has its own laboratory staff charged with keeping constant watch over all production and maintaining a close check on the output of every machine. • William Whitman Company offers this assurance of uniform quality in the products of a group of well-known mills providing a range of cotton and worsted yarns to meet individual requirements.

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YARNS AND RAW MATERIALS

TEXTILE WORLD ANALYST

◆Cotton Yarns Find Improved Inquiry

LIMITED business is reported in cotton yarns, but a decided improvement in inquiry is noted. While this is almost entirely for small lots for immediate delivery and still somewhat scattered, dealers are well satisfied with the outlook. With the volume of deliveries against specifications made, together with the buying before the end of the year, they are convinced there is a good chance for fair volume of business in yarns developing within a short time. Indications point to limited yarn supplies in users' hands. Wires are being received for express shipments of small lots, which in some cases must add at least 1c. to the cost per pound of the yarn needed. This demand is not broadly distributed, but it is considered a good sign of what may be around the corner.

Prices continue approximately at previous levels, which are already considered low enough. Any effort to advance prices on an inquiry results in losing the order, so that sales are being made at about the lowest point of the market. Continued firmness in cotton tends to stiffen the attitude of certain spinners in an effort to make a profit but usually they lose the business. A spinner declared that a sale of 20s-2 warps at 15c. meant a loss of over 2c. for him, and yet spinners in certain instances were accepting this figure. One spinner, however, declined to consider such a price, and asked 16½c. for a fair-size order. Many factors express the opinion that the low point of the market is reached.

Business with yarn users, however, has apparently not appeared in sufficient volume to cause extensive buying of yarns. As stated, 20s-2 warps have sold generally around 15c.; 30s-2 warps at 19c. There have been several fair-size sales of carpet yarns made recently on the low side of the market. Sampling of yarns for dress goods is noted, but no other development as yet. Other weaving mills are showing only scattered activity, including plush, tapestry, men's wear, etc. Some inquiry is reported from New York State in the wire trade.

Carded knitting yarns for both underwear and hosiery meet some interest, although most factors report Pennsylvania mills dull. Specifications for heavyweight underwear yarns are said to be rather slow. Prices remain about the same. While several good sales of coarse counts have been made this year at prices below the average level, 13c. appears to be the usual quotation for 10s framespun, with 18s at around 15c. and 30s regular yarn at around 20c.

Combed and mercerized yarns appear to be getting their share of interest. Specifications in better volume are reported on mercerized, and this situation is regarded as decidedly encouraging. While new business is not found in any large extent, nevertheless sellers look forward to spring business with more optimism. Prices remain about the same with rather more indication of stabilization. Scattered sales of gray yarns are being made but, as in carded yarns, the low price seems to be the winner.

◆Cotton Advances on Worth Street Reports

THE cotton market showed a slightly advancing tendency during the past week, although price changes were confined to an extremely narrow range. Reports of expanding sales of cotton goods from Worth Street early in the week as well as continued expectations that pending financial legislation at Washington would ultimately have a beneficial effect on commodities were factors on the advance. A fair volume of trade price fixing orders continued in evidence while southern selling remained moderate. Rains over the belt, which were quite heavy at times further delayed the movement, damaged cotton still remaining unpicked in the Southwest and delayed preparation of the soil. Views of the foreign financial situation were somewhat mixed owing to the statements from Germany with reference to her inability to pay reparations and the French Cabinet crisis, but hopefulness still prevailed that differences would be ironed out at the Lausanne conference. Prices fluctuated within a range of about 25 points with March contracts selling up to 6.57 compared with a low of 6.21 in the preceding week.

Trade opinion became moderately optimistic at times based largely on the possibility that the passage of the Reconstruction Finance Bill by Congress to be followed by other relief legislation might aid credit expansion to the extent of inflating present commodity values, which, they say, are out of line with costs of production and intrinsic worth. However, there has been no marked expansion in speculative interest thus far and apparently the disposition continues to await tangible indications of improvement, and in the meantime the trading has been confined chiefly to trade and southern account. As a general rule the market has been interested more in reports from Washington and financial centers abroad than in anything in the immediate cotton situation.

Weather conditions since the middle of December have been unfavorable for

(Continued on page 56)

◆Worsted Yarns Still Mark Time

LITTLE change of moment has developed in the worsted yarn market. Demand in anything approaching volume has yet to make its appearance. Sales so far are generally small and confined to prompt deliveries, but some spinners report inquiries somewhat better and regard the situation as developing favorably. However, prices continue more or less nominal and there is hardly enough volume in sight to cause any aggressive action.

Average spinners are holding quotations close to their previous levels, with 2-20s 50s quality Bradford knitting yarns generally held at 75c., although certain factors who usually lead in price concessions are said to be offering this yarn at 72½c. While spinners quoting the higher price are disposed to hold firm, because of wool conditions, it is admitted that any indication of a large volume of business getting away from them, would bring about a revision to the lower level. Wools apparently are in firm hands, and spinners find it difficult to operate at a profit if they met the competition. As a matter of fact some of the quotations heard recently have led more than one factor to express the opinion that some spinners have forgotten how to figure costs, especially on single 18s, 50s quality, Bradford slub dyed. This yarn now appears to have settled down around 90c. for an average quotation, with a few still holding for 92½c. Quotations are heard below 90c., but it is asserted that such yarns usually are not good quarter blood such as is required for quality merchandise.

While new business on knitting yarns is not yet showing any volume, inquiry for prompt shipment is reported improved. Specifications for bathing-suit yarns have also been coming in from those manufacturers who have secured a fair initial business. However, this activity has not become extensive as the real volume of business has yet to develop. Sweater mills have not found enough business to warrant active interest in yarns for the end of the season. Until spring season activity makes its appearance, it is difficult to quote prices with any degree of accuracy.

Weaving yarns for both men's wear and dress goods are also awaiting some development. There have been inquiries for prompt delivery yarns as certain mills are found to be operating fairly well on men's wear lines. Specifications are still reported rather difficult to obtain in any quantity, and new business so far is restricted. What little there is moving appears to be chiefly in fancies, with 2-30s 64s quality French spun at around $1.32½ to $1.35 while Bradford

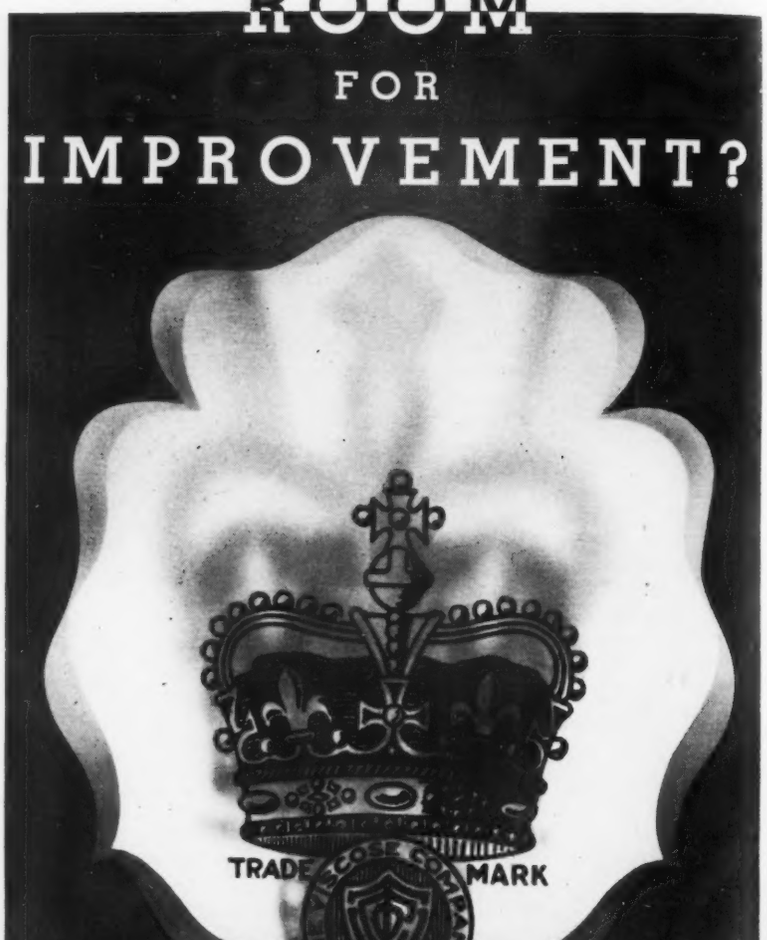
WHAT'S GOING ON IN OUR ROOM FOR IMPROVEMENT?

WE'RE PROUD TO ADMIT THAT WE HAVE ONE . . . AND IT'S BUSY ON YOUR PROBLEMS!

DURING times such as we've just passed through, it's a natural temptation for any yarn manufacturer to cut expenses on testing and research. Yet these are the very days when the textile trade should have the fullest support of the yarn industry . . . especially with regard to new fiber developments that may lead to fresh and more salable fabrics.

The Viscose Company, in the past two "years of depression" has spent more for testing existing yarns and developing new ones than ever before in their 21 years of rayon manufacture in America. A new permanent-dull and a highly successful new acetate yarn were both born during this period. Finer processing has been developed. The Quality-Control Plan was presented and placed in operation.

Right now, our Room for Improvement is busy with far-reaching research that has a direct bearing on your '32 business. And future advertisements in this series will convince you, we believe, that "the Crown is your buying-guide to good rayon."



THE VISCOSE COMPANY
200 Madison Avenue New York City

CROWN RAYON YARN

YARNS AND RAW MATERIALS

TEXTILE WORLD ANALYST

yarns have been sought on a basis of $1.25. This is regarded as too low by many spinners. Dress goods manufacturers of the cheaper lines are said to be having rather limited business on these grades for chain stores and the mail order houses, so that quality lines apparently have what advantage there is with fancies of various kinds claiming attention rather than piece dyes. While reports seem to indicate some movement of goods in the fabric markets, occasional reports of price concessions are cited as evidence of the unsettled condition which causes mills to delay their yarn purchases awaiting a definite price basis.

◆Wool Prices Steady On Small Sales

A SMALL and yet diversified demand for wool is the feature of the market. The trade looking back on the large turnover of 1931 is somewhat hesitant about committing itself to a belief that a similar large consumption will occur in 1932 and yet recognizing the stability of wool at the end of a long decline is of the opinion that a steady price market will be seen.

Recent wool sales have been made on a firm price basis and immediate delivery has been required. The wool trade is conservative in its hopes and equally so in its fears; but as it is at this time relatively short of stocks and long of cash a moderate optimism is the prevailing tone. Stable to advancing values in the raw material are expected to furnish a presumptive basis for manufacturing profits during the year of 1932.

Dealers have ceased to think of wool in terms of lower values. Anything like a severe slump in values has been antedated four years, it is said. Raw material values in the United States are crystallizing firmly, and values outside of the United States are relatively stable, though subject to disturbance through shifting conditions in international currencies.

Wool consumption in November, as generally expected, fell off materially from the amount utilized in October but the quantity of domestic wool used was larger than in either January, February or March. Decreased consumption was shown in November in all its grades with the exception of half-blood foreign wool which increased 98,000 lb. and in domestic braid which made a gain of 64,000 lb. Compared with November consumption in other years the amount passing through the mills was slightly above the five-year average so that the curtailment cannot be considered abnormal.

◆Substitutes Await Woolen Demand

THE outlook for woolen rags shows further promise, and, as the demand for even cheaper clothing is becoming increasingly insistent, woolen fabric manufacturers will be unable to overlook the superior cheap materials offered by this market. Some of the New England woolen mills are offering desirable fabrics well under the worsted goods prices and in patterns and finishes that appeal to clothing manufacturers. A little business is being done in light hoods free of silk at 9c. Worsteds, serges and most grades of new clips are quiet. If more white rags were available there might be a little more business transpiring, but graders cannot be expected to grade mixed rags when not more than 10% of the production is salable.

Wool wastes show signs of stiffening with dealers ordering resistance to any low bids coming in from prospective consumers. The market has been so long in the buyers' favor that a distinct change seems pending and the early weeks of the new year are not unlikely to realize a firmer and busier market.

The wool noil market is irregular to steady in price but is not in receipt of any such volume of business as would give prices a thorough testing. As related to wool and tops these by-products are low and the general average price is expected in the long run to bring about a substantial movement into consumption. The trade is hoping that the increased production and demand for all-wool blankets will result in better demand for white noils.

◆Rayon Crepe Yarns Still in Good Call

CUTTER and retailer interest in rayon flat crepes has continued strong and the active movement of these fabrics has kept rayon producers busy filling orders for yarns. The call is chiefly for 100 and 150 denier, dull-luster; demand was so spirited just after the holidays that rayon plants have doubled, in some cases tripled, their output of these particular numbers. Deliveries were falling behind, and two weeks was being asked on orders. At moment of writing, however, producers had caught up with demand and were able to ship spot.

Other deniers are quiet. Knitters show little interest, and producers do not look for any increased call from these mills before the end of the month. The underwear industry is in a comparatively good position, thanks to moderate stocks, and an acceleration of output, necessitating more yarn, may be expected within two weeks.

Rayon prices are steady, the market apparently becoming reconciled to the idea that silk competition, if it should eventually affect rayon levels, would not do so for some months.

◆Throwsters Active, Spun Yarn Quiet

THROWN silk yarns showed some improvement this week, and mill men are considerably encouraged. There were numerous inquiries, and a fair amount of buying; orders were small but they were well distributed, coming from both knitters and weavers; throwsters believe this call may mark the start of steady movement. Hosiery mills found themselves compelled to cover for spring production; they bought trams actively for February and March delivery.

Broadsilk manufacturers still hold off buying spun yarns, but spinners are hopeful that business will pick up after the weavers have had reaction to the new fabric openings. Wool good mills have slowed up their yarn orders; underwear knitters continue to buy moderately. Prices are steady; outlook is uncertain.

◆Raw Silk Stronger; Prices Up 5-10c.

A STEADIER tone with firmer prices marked the raw silk market this week. Buying interest among broadsilk manufacturers was light and there was little immediate prospect of any great improvement. The weavers are in better mood than last week, but they still complain of slow movement of fabrics and they are holding down on spring production. The precarious status of numerous of the smaller broadsilk firms has caused a tightening of credit among importers which has resulted in the rejection of considerable business; the credit executives of the raw silk firms find the number of bad risks to be considerably larger than six months ago, and they are trying to evolve an intermediate policy which will protect their interests while at the same time, allowing moderate latitude to promising customers.

Raw silk prices have advanced 5 to 10c. There is little effort among importers to force sales; they are sitting back awaiting developments. Hosiery mills are more active and have placed substantial orders, some buying as far ahead as June; most of the business, however, is limited to March. Tendencies point to possible further declines.

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FABRIC MARKET REPORTS

TEXTILE WORLD ANALYST

◆Cottons Take Turn for the Better

THE advance in the price of print cloths early this week under stimulation of more active business is one of the first really bright spots on the cotton goods horizon for many weeks. Trading of Saturday morning and Monday was estimated to exceed in total all that for at least a week previous. The fact that some of the contracts placed call for deliveries running through June indicates greater confidence in the future than the market has seen for some time.

Under the influence of the generally better feeling in cotton goods many of the lines which have been inactive since early December began to attract interest. The fact that stocks are light among distributors, which has been much stressed in market conversations for several months, is showing itself in requests for quick shipment of all sorts of materials. When the converter gets a call for goods he is almost immediately forced into the primary market for his gray yardage. Concentration on certain particularly popular numbers has resulted in a shortage of spots and nearby lots with the result that January deliveries command a premium over later months.

If matters move for a much longer period as they did early this week, there is every reason to believe that the first quarter of the year will lay down a fair record as to volume. Mill treasurers are hopeful that with the start of the year having been made on a basis which touches 30-year lows, the probability of inventory loss in 1932 is scant. This loss has ruined many a mill statement during the last three years despite opportunities for hedging which are offered by the cotton exchange. If restraint of production can be maintained, opportunity can be taken to ask a price for goods which includes profit and the industry at large put on a better footing.

It is understood that the cotton duck situation, which at one time was menaced by burdensome stocks, has considerably improved. Inventories outside of the mills are abnormally small, and, if the various consuming industries are to continue even at only a slow rate, they must now be fairly constant purchasers of duck.

As converters have been waiting for the garment trade to start the spring season, it is still early for the development of much of a buying movement but when this does start it will add its weight to an already improved market.

Print cloth business early this week continued to stress 4-yard 80-squares. This construction was advanced during the course of one day's sales until January deliveries stood at 5½c., February at 5⅝c. and later months at 5⅝ to 5¾c. Certain buyers contracted for this fabric through June for 5⅞c. The 68x 72s, which had been a glut on the market because of the relatively low price of 80-squares, took a sharp upturn as interest turned to them. Sales of 68x 72s were reported as low as 3 15/16c. on Jan. 8, while at the close of business on Jan. 11 the going price was 3⅞c. with many houses asking 4c. Sales of 64x 60s were made at 3½c. with some contracts running through June.

Carded broadcloths were not so active as print cloths, but there was more spirited buying than last week. For 100x60s actual spots brought 5⅛c. Early in the week there was still a persistent lull in fine and fancy goods, though the better spirit in the market is helping them toward better things. Sheetings and drills were only moderately active.

The new merchandising of percales is having an effect on buyers and the higher price levels in these goods are being regarded as sound. Buyers who at first hesitated have been placing orders in view of the possibility of another price advance.

◆Distress Clearance Weakens Worsteds

THERE is considerable price pressure in the wool goods market, particularly at the men's worsted end. Numerous mills specializing in low-priced worsteds offered worsteds at drastic reductions just after the holidays, to effect quick turnover for inventory purposes; good-sized stocks changed hands, but there was little or no profit in the transactions. The current week brought a slightly stronger tone among the weavers; cutters are very hesitant, however, and the fabric market does not look for much improvement before the end of the month.

It is contended that most of the stocks sold at distress prices last week were really of inferior type and did not represent the values claimed for them. A point which would seem to confirm that claim is that the better quality worsteds are holding rather steady as to price and while demand is very light, mills are able to make some profit on orders.

The acute hesitancy among retailers is blamed for the failure of worsteds to show the January improvement that had been expected. The spring fabrics move very slowly, cutters finding themselves compelled to hold off, due to the sluggish condition of the ready-to-wear market. Overcoatings also are slow, this being ascribed to backward weather. There is a moderate spot call for women's wear fabrics.

◆Broadsilk Prints Reported Weakening

BROADSILKS were fairly quiet through the first ten days of the year, but tone improved early this week and the market looks for better buying especially by cutters, after Jan. 18. The dress trade shows interest in the pure dye crepes and a fair amount of business on the 75c. and the $1.15 lines has been placed; prices at this end are steady, thanks to low stocks. Position of prints weakened perceptibly, though it is not clear exactly why, as there is no great quantity of merchandise available. However, prints have been a doubtful element since December and few companies look confidently to any real profits from these designs. The policy of restricting initial output of new numbers undoubtedly is helping against a price break, but even with this aid, the prospects for prints are far from encouraging.

Spirited call for all-rayon crepes is reported and indications point to continued emphasis at that end for the rest of the month. Interest in rayons tallies with the general trend to low-priced fabrics. Current rayon lines include numerous attractive offerings and cutters are responding; crepes, satins, taffetas are among the fabrics now in demand, with a steady though less spirited call for the more expensive acetates. Retailers have not yet begun buying as their season is early, but weavers look for demand at that end beginning next week.

▸New Spring Fashions Called Readily Salable

"A courageous and accurate attack and plenty of it, will sell this spring's fashions," said Amos Parrish, at the opening of the Eighth Fashion Merchandising Clinic last Monday in New York. "This spring's fashions are as gay, spirited and as wearable as any that have ever been conceived. It will be fun to wear them. They offer alert, courageous stores the chance to get customers excited about them. Because they themselves are so exciting."

The attendance at this Spring Fashion Clinic was the largest of any single clinic session to date, and more than doubled the number which attended the last clinic held in July.

KNIT GOODS MARKETS

TEXTILE WORLD ANALYST

◆1932 Ribbed Underwear Down 8-12½%

CONFIDENCE in the 1932 outlook was expressed by ribbed underwear manufacturers at a meeting of the Associated Knit Underwear Manufacturers held last week at the Yale Club, New York. The members decided to open their fall lines about Feb. 15, at prices from 8 to 12½% below last year. All business taken between now and the opening will have the benefit of the new prices when announced. The Southern ribbed group is determined to watch stocks very closely throughout the year, and unless demand shows an unexpected jump, output will not be above 55% of capacity.

Thanks to a firm policy on curtailment, financial upset was averted during 1931 and some underwear firms reported substantial profit; it was no boom year for anybody, but prices held steady despite the cotton break last fall and the knitters now seem thoroughly sold on the necessity of holding stocks to minimum.

Current underwear demand is light and centers chiefly on spring-weights. Rayons are comparatively active, both men's and women's, but the real movement of January has not developed and mill agents do not look for improvement before the latter part of the month.

◆Smaller Mills Cut Swimsuit Output

CURTAILMENT of bathing-suit production by the smaller mills is helping to improve the stock outlook of this market for spring. Mill agents who discussed the situation this week, said they regarded prospects as considerably brighter than in December. The year ended with decidedly low advance swimsuit business on the books, and January demand has not yet developed. The numerous price reductions of recent months made buyers hesitant but there are signs of a new confidence and if the mills hold down on stock output during the next eight weeks, the pressure toward lower levels may be resisted.

Knitters speak optimistically as regards prospects for holding to current prices through the better part of the spring. Certain factors go so far as to suggest that the present curtailment may cause a shortage, but general observation of the industry fails to confirm that happy thought.

Present buying shows further trend to white suits, both in men's and women's lines, and manufacturers now believed white may be a foremost line in spring demand. Women's suits in pastel shades and the livelier tones continue important.

Outerwear mills expect the year just opening to bring increased demand for knitted dresses; these lines enjoyed a substantial growth during 1931, and prospects point to continuation of this popularity. Sweater demand is limited; a few knitters of lightweights reported moderate buying this week, but the real spring call is not expected before next month.

◆Mesh Hosiery Active Pending Openings

ORDERS for women's novelty lines featured the start of the year at hosiery mills; most contracts were small and for immediate delivery; they were restricted to fill-in business, as the buyers tend to hold back on orders, pending the new season openings. Most of the mills are expected to have their 1932 lines on the market within two weeks, and movement of merchandise should show improvement toward the second week of February.

It is important to remember that, despite the strong trend toward mesh and lace-top numbers, the whole novelty line remains a secondary proposition compared with staple full-fashioned. Mill agents stressed that point this week, in observing that their staples enjoyed a comparatively good call through the first business week of the month, adding that they regard the mesh demand as nothing more than a temporary fashion development.

Mesh lines which are carefully styled and held within the retail price range of $1.35 to $1.95 promise to be satisfactory money-makers during spring, provided output is kept in close control. Knitters of these quality lines do not regard the prospect of low-priced mesh with such apprehension, asserting that patterns in that latter range will be necessarily limited; as pattern is one of the big selling points of mesh, the mills expect only moderate competition.

Buyers are awaiting prices of the new lines, but to date manufacturers have withheld any indications. It may be assumed, in view of the raw silk decline that there will be a strong pressure for lower levels; some mill agents insist hosiery prices cannot go lower "unless they give them away" and a certain amount of resistance to reductions may be looked for.

Half-hose moves unevenly; prices at the lower end are firmer than in December but there is too much distress merchandise available to permit any real strength. Knitters of lines selling retail at 50c. to $1.00 claim they can move their merchandise satisfactorily without undue concessions.

◆Raw Cotton Reports

(Continued from page 51)

field work and as a result preparation of land for the new crop is practically nil. Continuous rains have undoubtedly helped the "season in the ground," but combined with the mild winter temperatures they have been favorable to survival of the weevil. Grade of cotton still remaining in the fields in northwestern Texas, Oklahoma and Arkansas has been further lowered by the weather and in some instances the belief is expressed that the remnants of the crop will not be completely harvested so that some in the trade are looking for a moderate reduction in the total number of bales ginned from the Government indication of December. This, however, would have little or no effect on the supply situation and the trade is looking to the possible expansion in consumption, reduction in acreage as well as the probable yield to aid in rectifying the statistical situation.

The General Manager of the American Cotton Co-operative Association was quoted as saying that the probable decrease in acreage would be 10% without additional drastic curtailment legislation with the possibility of a maximum decrease of 15%. He believes that with normal weather conditions an estimated production of 150 lb. per acre would be fair which would point to an outturn of about 11,000,000 bales on an acreage reduction of 15%. These early ideas on the probable reduction in the coming cotton acreage, however, are largely conjectural and thus far have been without any apparent influence on the market. A test case to try out the validity of the Texas acreage reduction law will come up in that State next week.

◆Peeler Comber Continues Active

THE meager amount of information forthcoming from cotton waste dealers regarding the situation in contracting indicates that there has been a slight easing in the level at which contracts are being placed. In one case a dealer bought comber at 81% which is 2 to 4% less than was the case two weeks ago.

Demand for spot peeler comber, both from domestic and foreign sources, continues to feature the market, the price for strictly No. 1 quality holding firmly at 5¾ to 6c. The only other waste at all active is peeler strips, which moved on a basis of 5½c. Some dealers look for an improved demand for stuffing stocks in the near future provided the automobile industry increases production following the showing of new models.

TEXTILE FINANCIAL NEWS

TEXTILE WORLD ANALYST

♦Commercial Factors Closes Biggest Year

FIGURES issued by Commercial Factors Corp., New York, textile factors, show that the company has just completed the largest year in its history. The volume of business transacted totaled $116,000,000 compared to $108,000,000 in 1930, an increase of 8%.

Robert G. Blumenthal, president of the company, stated that this increase was due to the acquisition of new accounts; for although the sales of some individual mills were greater than during the prior year, in the majority of cases sales of individual mills declined from 15 to 30%. He added, "More than 275 mills, converters, and importers are now transacting their business through us and the demand for factoring service is on the increase due to the factor's assuming the entire credit risk on sales discounted. Although our own credit losses during 1931 were considerably above normal, they nonetheless were a smaller percentage of our total volume than in the prior year, and this in the face of insolvencies throughout the country decidedly larger than in 1930 both in number and amount."

Commercial Factors Corp. is a wholly-owned subsidiary of Commercial Investment Trust Corp. The company was formed in 1929 through the merger of Fred'k Vietor & Achelis, Inc., and Peierls, Buhler & Co., Inc., and it has since acquired the business of several other well known factoring houses. The Commercial Investment Trust Corp. has, in addition to Commercial Factors Corp., another factoring subsidiary, Meinhard, Greeff & Co., Inc., whose figures are not included in the above.

Worcester Silk Reorganization

Both secured creditors, including silk dyers, throwsters and weavers, and unsecured merchandise creditors of the Worcester Silk Mills Corp., New York, with mills at Worcester, Mass., met at the New York Credit Men's Adjustment Bureau, Inc., recently, with representatives of the Worcester County National Bank, of Worcester, and Jules L. L. Forman, vice-president of the corporation, to discuss possible rehabilitation plans for the business. The tentative plan submitted included the rearrangement of the capital structure to convert some outstanding debts into capital stock subscriptions, and to arrange for the payment of the other claims on a basis of 100c. on the dollar under an extension plan. Figures showed liabilities of $645,000 against assets of $475,000. The plan will increase the capital investment of the company and the liabilities will be decreased, so that the assets would still remain at $475,000, and the liabilities would be decreased to $220,000, plus $150,000 owing to the bank, with the understanding that this $150,000 debt would be indefinitely extended, but would become a prior lien in event of liquidation.

The assets, creditors were informed, consist of $425,000 in merchandise at market prices and the plant conservatively valued at $50,000.

Russell Mfg. Capital Increase

The Russell Mfg. Co., Middletown, Conn., manufacturers of men's garters, suspenders, webbing, brake lining, etc., reports a surplus of $2,177,669 as of Nov. 30, 1931, compared with $2,937,518 as of Nov. 30, 1930. At the 98th annual meeting of stockholders approval of the charter amendment by the General Assembly, permitting the increase in authorized capital from $2,000,000 to $5,000,000, will be acted upon.

In the annual statement just issued, inventories are valued at $1,456,739 against $1,971,584 the year before. Total current assets were $2,571,423, compared with $3,333,346 a year ago. Total assets were $4,945,961, compared with $5,571,043 a year before.

Current liabilities Nov. 30, 1931, were $744,109 and for the previous year were $813,524. Total liabilities and capital were $4,945,961, compared with $5,751,043 a year ago.

Fall River Dividend Rate Low

Total regular dividends paid by Fall River (Mass.) mills in 1931 amounted to $650,472, or 1.62 per cent of total capitalization. Of this amount, $150,000 was paid by Grinnell Mfg. Co. as a special dividend in partial liquidation of surplus quick assets. Those mills which paid dividends in 1931 included: Beacon, common and preferred; Dartmouth, common and preferred; Gosnold, preferred; Grinnell, Neild, Pierce, Quissett, Soule, and Taber preferred. In addition, Acushnet, Bristol, City and Kilburn mills paid liquidation dividends totaling $1,223,500.

Writs Filed on Whitman Notes

Write of execution totaling $229,770 to enforce judgments obtained in the Suffolk Superior Court, Boston, and the Third District Court of Bristol, against the Whitman Mills, have been filed at the New Bedford (Mass.) Registry of Deeds. These writs are suits on notes brought by The First National Bank of Boston, the First National Bank of New Bedford, the New Bedford Institution for Savings, and the New Bedford Five Cents Savings Bank against the mill corporation.

Loss Indicated for Sanford Mills

For the fiscal year ended Nov. 30, 1931, Sanford (Me.) Mills showed a loss, according to balance sheet comparison, of $794,860, which compares with an indicated profit of $88,251 in 1930, and a profit of $926,284 in 1929. As of the fiscal year just ended, the balance sheet surplus totaled $11,924,260, a reduction of $1,170,163, and as dividends of $375,303 were paid during the year a loss of $794,860 is indicated.

Current assets on Nov. 30, 1931 totaled $6,077,595 and current liabilities, $7,414, leaving working capital of $6,070,181, or $1,042,260 less than on Nov. 30, 1930.

Boston Stock Auctions

The following sales of textile shares were made at the Boston stock auction, Jan. 13:

Shares	Mill	Par	Price	Ch'ge
35	Newmarket.....	100	5	...
133	West Point.....	100	33	—2
168	Total			

▸ Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended Jan. 12:

	High	Low	Last Sale	Net Ch'ge
Adams Millis	26¼	25½	26½	+2
American Woolen	4	3⅞	4	+⅛
American Woolen, pfd	20⅛	16⅞	19	+3
Belding-Heminway	3	2⅞	3	+⅛
*Bleumenthal	6	6	6	+1½
Botany Mills, A	⅛	⅛	⅛	...
Cannon Mills	18	17¼	18	+1
Century Ribbon	6½	5	6½	...
Collins & Aikman	9½	8	9	+1½
Consolidated Textile	⅛	⅛	⅛	+⅛
Duplan Silk	10	10	10	...
Gotham Hosiery	9	8	9	+1½
Industrial Rayon	27½	24½	26½	+3⅛
Kayser, Julius	8½	7⅞	8½	+⅛
Kendall, pfd	29	28	28	—⅛
Mallinson	⅛	⅛	⅛	—⅛
Mohawk Carpet	9	8	9	+1
Munsingwear	11	11	11	—⅛
Pacific Mills	10½	8	10½	+2⅛
*Pepperell	32	31⅛	31½	+⅛
Real Silk Hosiery	2⅛	2⅛	2⅛	—⅛
*Tubize	2½	2	2½	+⅛
United Piece Dye Works	10½	9⅞	9⅞	—1⅛

*Listed on Curb.

▸ Textiles on N. Y. Exchanges for Year of 1931

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the year of 1931:

	High	Low	Last Sale	Net Ch'ge
Adams Millis	33½	22½	25½	+2½
*American Thread, pfd	3½	1½	3	—¼
American Woolen	11⅞	2⅛	3½	—3½
American Woolen, pfd	40	15½	16½	—4½
*Assoc. Rayon, pfd	4	⅛	1	+⅛
Belding-Heminway	6½	1⅞	2⅛	+⅛
*Blumenthal	20½	3	4½	—6
Botany Mills, A	3⅞	⅛	⅛	—⅛
Cannon Mills	25	17	17½	+½
Century Ribbon	8½	2½	4½	+2½
Collins & Aikman	17½	6½	7½	—7½
Consolidated Textile	1⅛	⅛	⅛	+⅛
*Courtalds, Ltd	8½	5⅛	5⅛	....
Duplan Silk	14⅛	10	10	—4½
Durham Hosiery, pfd	23	20½	20½	—2½
Gotham Hosiery	13⅜	3½	8	+4
Industrial Rayon	86	21	23⅜	—33⅛
Kayser, Julius	24⅛	7½	8	—9
Kendall, pfd	60	20	28½	+8½
Mallinson	4⅛	⅛	⅛	—1⅛
*May Hosiery, pfd	20½	16	18½	—1½
*Mock Judson	10½	3	4	—1
Mohawk Carpet	21⅛	7½	8½	—1½
Munsingwear	31½	11	11½	—17½
Pacific Mills	26½	7½	10½	—6½
*Pepperell	79	28	28	—50
Phoenix Hosiery	10½	3½	3½	—3½
*Powdrell & Alexander	33	17½	17½	—7½
*Propper-McCallum	5	⅛	⅛	—2⅛
Real Silk Hosiery	30⅞	1⅛	2½	—24⅛
*Tubize	16	1½	2	—1½
United Piece Dye Works	31½	9½	11½	—13½

* Listed on Curb.

▸ Blumenthal to Supervise All C.I.T. Factoring Subsidiaries

Henry Ittleson, president of Commercial Investment Trust Corp., announced that because of the growth of the C.I.T. factoring divisions, a change has been made in the duties and official positions of certain executives. Mr. Ittleson said:

"Because of the greater importance which the factoring divisions have assumed in the Commercial Investment Trust organization, it has become advisable for us to create a supervisory unit, for all of our present and future factoring activities, as a part of the executive personnel of the parent corporation which governs the operations of all subsidiaries.

"Robert G. Blumenthal, vice-president of Commercial Investment Trust Corp., will be in charge of this unit, which will occupy quarters within our executive offices at One Park Avenue. Mr. Blumenthal, heretofore president of Commercial Factors Corp., has been elected chaiman of the executive committee of that company as well as of Meinhard, Greeff & Co., Inc. Johnfritz Achelis continues as vice-chairman of the executive committee and Francis T. Lyons, vice-president, has been elected president of Commercial Factors Corp. Thomas Smidt, formerly chairman of the executive committee, has become chairman of the finance committee. All other officers continue as in the past."

▸ Marks Named Head of Raw & Thrown Silk Assn.

The annual meeting of the American Raw and Thrown Silk Association was held in Paterson, N. J., Tuesday, and the following officers were elected:

President, Charles Marks, secretary of Marlin Silk Co.; vice-president, Joseph Cotellessa; assistant cashier, National Bank of America; treasurer, Milton Byrd, secretary of Hamilton Trust Co.; counsel, David Smith; executive secretary, M. M. Baker, re-elected.

Four new directors were elected as follows:

Samuel Nussbaum, Sanue Silk Co.; Milton Byrd, Joseph Cotellessa and Morris Drexler, Alpha Silk Co.

▸ Southeastern Chemists to Meet

Southeastern Section of American Association of Textile Chemists and Colorists will hold its winter meeting at Ralston Hotel, Columbus, Ga., Feb. 6, according to annnouncement from Charles B. Ordway, Auburn, Ala., secretary of the section.

▸ Alumni Night Held at New Bedford Textile School

The Alumni Association of the New Bedford Textile School held an alumni night at the school in New Bedford, Mass., recently, which brought together about 300 alumni and undergraduates. Games were played between the first and second basketball teams of the school and the alumni with the latter victors in both games. A dance followed. Members from all parts of New England and from other sections of the country attended and hope was expressed that the gathering might soon be repeated. John L. Fawcett is president of the Alumni Association.

▸ Suggested Basis for Print Cloth Mill Curtailment

Although no definite basis of curtailment in print cloth mills has yet been accepted by all factions in the group, mill executives interviewed in South Carolina this week were of the opinion that a mutually satisfactory schedule would be worked out. The proposal receiving greatest consideration at this time is for night-running mills to close down at noon on Thursdays and the single-shift mills close at noon on Fridays. Others point out that arrangement of the labor shifts would be simpler if night-running mills operate on the basis of 80 hours per week and the day-running mills 50 hours per week. This would represent approximately 20% reduction in the production of gray goods mills, averaging both day and night running plants. Many print cloth mills have changed to broadcloths and other constructions in which the manufacturing margins are somewhat wider than print cloths. There is a growing desire to come together on common ground to avoid disastrous developments.

▸ Bliss, Fabyan & Co. Begins Its Second Hundred Years

The year 1932 marks the beginning of a second century in the cotton goods business for Bliss, Fabyan & Co. The company is commemorating the event with large hand-painted posters in the offices and showrooms and with an elaborate booklet which is being prepared for distribution late this month.

The original firm of Parks, Wright & Co. was founded in Boston in 1831 at 101 State Street. Through a succession of partnership changes the firm changed to Wright & Whitman in 1855, to J. S. & E. Wright & Co. in 1863, to Wright, Bliss & Fabyan in 1875 and finally to Bliss, Fabyan & Co. in 1882.

▸ Harvey Masteller Again with G. L. Landman

Harvey Masteller is again selling for G. F. Landman of the firm of G. F. Landman & Son, worsted yarns, Philadelphia. Mr. Masteller formerly sold for Mr. Landman when the latter was connected with the Amoskeag Mfg. Co. G. F. Landman & Son represent the Centredale (R.I.) Worsted Mills.

▸ December Cotton Consumption

Cotton consumed in December according to government figures was 415,517 bales against 428,870 in November and 405,518 in December, 1930.

▸ Wholesalers Handle 52.5% Knit Goods Output

Wholesalers handle more than half the output of knit goods plants, according to figures made public Friday by the Bureau of the Census, Department of Commerce, and 34% is sold direct to retailers. Data collected for the Census of Distribution show that of the total sales by the knit goods mills in 1929, amounting to $910,616,000, sales aggregating $237,280,000 or 26.1% were made through selling, agents, brokers, or commission houses.

The following table shows distribution of sales in the knit goods industry in 1929, as disclosed in the Federal survey:

To manufacturers' own wholesale branches	4.1%
To manufacturers' own retail branches	0.8%
To wholesalers	52.5%
To retailers	34.1%
To industrial and large consumers (clothing and other manufacturers, meatpackers, upholsterers, U. S. Government, etc.)	8.0%
To household consumers	0.5%

The merchandise cleared through the first named group was en route to wholesalers, retailers, and consumers; through the wholesalers to retailers and consumers.

▸ Betsch Again Heads Credit Group

W. G. L. Betsch, of Wm. Iselin & Co., New York, was reelected chairman of the Uptown Credit Group of the Textile Industry, which is affiliated with the Silk Association of America, at a meeting of the group held in New York, last Wednesday. A. W. Hamilton, of Commercial Factors Corp., was chosen vice-chairman, and A. B. Heller, of B. Edmond Davis, was chosen recording secretary.

▸ W. R. Rietheimer to Represent Tennessee-Eastman in Midwest

William R. Rietheimer, Chicago, announces that in addition to representing Boger & Crawford on mercerized yarns and Thos. Wolstenholme Sons & Co. on French worsted yarns, he is now representing, in the middle western market, the Tennessee Eastman Corp. on cellulose acetate yarns.

▸ Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended Jan. 9, based upon data compiled by Dept. of Agriculture, follow:

	Week Ended Jan. 9	Total to Date 1932	Total to Date 1931
Domestic	1,650,000	1,811,000	2,726,000
Foreign	1,570,000	1,816,000	2,262,000
Total	3,220,000	3,627,000	4,988,000
IMPORTS AT PRINCIPAL PORTS			
Boston	1,570,000	1,816,000	2,262,000
Philadelphia	894,000	1,247,000	1,216,000
New York	427,000	648,000	2,419,000
Total	2,891,000	3,711,000	5,897,000

Business News

Silk Association Dinner Plans Nearly Complete

Conditions in the silk industry lend unusual interest this year to the annual dinner of the Silk Association of America, which will be held Thursday evening, Jan. 21, at the Waldorf-Astoria Hotel, New York. Executives of the association report an active demand for reservations, and plans for the evening are nearly complete. The dinner is the 60th event of the kind. Developments in the trade give it particular significance this year; the raw silk market has reached unprecedented low levels and importers look for further decline; an important aspect of this situation which will occupy attention informally at the dinner, will be the curtailment of buying due to tightening of credit requirements by raw silk houses.

One development lending cheer to the annual get-together of the silk trade and which will be discussed at length at the dinner, is the improved outlook for broadsilks. Thanks to the decision of leading weavers to curtail output and to resist downward price pressure, market tone is considerably stronger than last year at this time. The chief speaker at the dinner will be Thomas B. Hill, president of the Silk Association and president of C. K. Eagle & Co.

The dinner committee includes: A. B. Strange, chairman, W. Robert Blum, Frederick H. Knight, Charles Muller, and Henry E. Stehli. There are many prominent guests, including government officials and representatives of other associations.

New Plan for Part-Wool Blanket Labeling

Representatives of the blanket manufacturers met in New York this week and voted unanimously to accept the recent recommendations of commercial standards of the United States Bureau of Standards for wool and part wool blankets with the following changes:

1. "That no finished blanket containing less than 5% wool shall carry the word 'wool' in any form."

2. "Blankets carrying the word 'wool' in any form and containing between 5 and 25% wool shall be labelled 'Part Wool, Not Less Than 5% Wool.'"

3. "Blankets containing more than 25% wool shall be labelled with the guaranteed wool contained in percentage."

4. "Blankets containing more than 98% wool shall be labelled 'All Wool.'"

This agreement is to be effective after Dec. 31, 1932.

Navy Wants 2,500 Yds. Prison Gray Cloth

The Bureau of Supplies and Accounts, Navy Department, Washington, has asked for bids on 2,500 linear yards of 14-ounce prison gray cloth, of a width not less than 54 inches, exclusive of selvages. Bids will be opened 10 a.m. Jan. 26.

James L. Coker, 3d, Elected President of Sonoco Products, Inc.

James L. Coker, 3d, has been elected president of Sonoco Products Co., Hartsville, S. C., manufacturers of paper cones, parallel tubes, spools and paper specialties, to succeed his father who died on Nov. 21, 1931. Other officers of the company are D. R. Coker, vice-president; C. K. Dundap, secretary; J. B. Gilbert, treasurer; and C. H. Campbell, sales manager.

Takes Over Textile Secretarial Service

Miss Kathleen E. Wakefield, formerly connected with the Southern Textile Association as assistant to the secretary, has taken over the Textile Secretarial Service, 817 Johnston Building, Charlotte, N. C. This organization provides desk space, stenographic service, mail forwarding service and other office conveniences for salesmen and others associated with the textile industry.

Vice-Presidential Appointments by General Refractories

At a meeting of the Board of Directors of the General Refractories Co., Philadelphia, Pa., on Dec. 28, 1931, the following appointments were made: F. L. McManus, vice-president in charge of traffic; D. M. Thorpe, vice-president in charge of sales; L. Tschirky, vice-president and assistant to president.

Lincoln Electric Announces New Manager at Indianapolis

Lincoln Electric Co., Cleveland, announces that R. D. Eaglesfield has been appointed district manager in charge of motor and welder sales with headquarters in Indianapolis. The Indianapolis office of the Lincoln Electric Co. is now located at 314 East 16th Street in the Architects and Engineers Building.

Opens Office as Consulting Engineer

Harry P. Nichols, formerly with the American Abrasive Metals Co., New York, opened his own office the first of the year at 7 Dey St., as consulting engineer.

General Electric Stockholders Increase by 33,323 in 1931

The stockholders of the General Electric Co. increased by 33,323 between December, 1930, and December, 1931. The total number of stockholders in December, 1931, was 150,073, the largest in the company's history.

International Business Machines Expands South American Connections

International Business Machines Corp., New York, materially increased its Latin American organizations during 1931, and recently opened training schools for employees in Brazil, Argentina, Chile and Cuba preparatory to sending more men into the field during 1932, F. W. Nichol, assistant to the president and foreign manager, reported on returning from a five months' study of eight Latin American countries.

Latin America affords vast foreign markets for American goods, especially mechanical products and business equipment, Mr. Nichol said, and American companies may readily build up native sales organizations that can produce results comparing favorably with those of domestic sales departments.

Synthane Corp. Appoints Mid-West Representative

Synthane Corp., Oaks, Pa., manufacturers of Synthane laminated Bakelite, sheets, rods, tubes, fabricated parts and stabilized gears, has appointed Industrial Products Sales Corp., St. Louis, Mo., as sales representative for St. Louis and the surrounding territory.

Sheffler-Gross to Sell Cuno Filters in Philadelphia District

Sheffler-Gross Co., Inc., sales engineers, Philadelphia, Pa., have been appointed sales representatives in the Philadelphia district for the Cuno Engineering Corp., Meriden, Conn., manufacturers of the Cuno self-cleaning filters.

H. H. Timken, Jr., Promoted

Henry H. Timken, Jr., has been made assistant to the president of the Timken Steel & Tube Co., Canton, Ohio, according to announcement by Fred J. Griffiths, president of the company. He has been serving in the capacity of assistant works manager of the Timken Roller Bearing Co. for the last two years.

Herbert A. Doyle Resigns from Plywood Containers, Inc.

Herbert A. Doyle, author of many standard short methods of box footage computation, has resigned as treasurer and director of Plywood Containers, Inc., Phillipsdale, R. I. Mr. Doyle had been identified with American Plywood Box Co., Inc., Providence, R. I., from 1925 until its acquisition by Plywood Containers last August.

Chemical Supply Co. Incorporates

Textile Soap & Chemical Co., Stonington, Conn., has incorporated to manufacture chemical supplies for the textile industry. The company is authorized a capital of $100,000 and lists the following incorporators: William Butler, Clarence A. Reynolds and Charles H. Reynolds.

Melvin Ryder Joins MacBride, Ullman & Ryder

Melvin Ryder, who has been an associate of Amos Parrish & Co., for 3½ years has become vice-president of MacBride, Ullman & Ryder, Inc., New York, which succeeds MacBride & Ullman, retail store counsellors, specializing in planning and directing store events, institutional advertising campaigns, consumer surveys, merchandising and sales promotion analysis.

QUOTATIONS

at close of business, Jan. 13, 1932
Prices cover average qualities unless otherwise stated

Cotton Goods

	Jan. 13	Jan. 6	Jan. 14 1931
PRINT CLOTHS			
27 -in., 64x60, 7.60	2½c.	2½c.	3¼–3½c.
38½-in., 64x60, 5.35	3½c.	3½c.	5¼c.
39 -in., 68x72, 4.75	4 c.	3½c.	6 c.
39 -in., 72x76, 4.25	4½c.	4½c.	6¼c.
39 -in., 80x80, 4.00	5¼–5½c.	5–5½c.	7⅛–8 c.
BROWN SHEETINGS			
36-in., 56x60, 4.00	4c.	4 c.	6c.
36-in., 48x48, 3.00	4¼c.	4¼ c.	6¼c.
37-in., 48x48, 4.00	3¼–4c.	3¼–4 c.	5½–5¾c.
PAJAMA CHECKS			
36½-in., 72x80, 4.70	4¼–4½c.	4¼–4½c.	6c.
36 -in., 64x60, 5.75	3⅝–3¾c.	3⅝–3¾c.	5c.
MISCELLANEOUS			
Drills, 37-in., 3 yd..	4¼c.	4¼c.	7¼c.
Denims, 2.20	9½c.	9½c.	11½c.
Tickings, 8 oz.	13 c.	13 c.	16 c.
Standard prints	6¼c.	6¼c.	7½c.
Eastern staple ginghams, 27-in.	6½c.	6½c.	8 c.

Cotton Waste

Peeler comber	5½ – 5¾
Peeler strips	5¼ – 5½
Sak. comber	4¾ –
Choice willowed fly	2¾ – 3½
Choice willowed picker	2 – 3
Sak strips	6½ – 7½
Linters (mill run	2 – 2½
White spooler (single)	4¼ – 4½

Cotton Yarn

CARDED (Average Quality)
Double Carded 2c.—4c., higher according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

4s to 8s	$0.13	22s	$0.16
10s	– .13	24s	– .17
12s	– .13½	26s	– .18
16s	– .14½	30s	– .19¼
20s	– .15½	40s ex. qual.	– .28

TWO-PLY SKEINS AND TUBES

8s-2	$0.13	26s-2	$0.18–0.18½
10s-2	– .13½	30s-2	19– .19½
12s-2	– .14	36s-2	– .25
14s-2	– .14½	40s-2	– .26
16s-2	– .15	40s-hi.brk.	– .28
20s-2	15 – .16	50s-2	– .34
24s-2	17 – .18	60s-2	– .37

SINGLE WARPS

10s	$0.13	24s	$0.17
12s	– .13½	26s	– .18
14s	– .13½	30s	– .19½
16s	– .14	40s. ex.qual.	– .28
20s	15 – .15½		

TWO-PLY WARPS

8s-2	$0.13	24s-2	$0.17½–0.18
10s-2	.13½	26s-2	– .18½
12s-2	.14	30s-2	.19 – .20
14s-2	.14½	40s-2 ordin.	– .27
16s-2	.15	50s-2	– .34
20s-2	.15 – .16	60s-2	– .37

8s-2 and 4-ply skeins and tubes; tinged, 12; white, 13; waste, 11½

HOSIERY CONES (Frame Spun)

8s	$0.13	22s	$0.16
10s	– .13	24s	– .17
12s	– .13½	26s	.18
14s	– .14	30s tying	– .18½
16s	– .14½	30s reg.	– .20
18s	– .15	30s ex.qual.	– .21
20s	– .15½	40s	– .26

COMBED PEELER (Average Quality)

TWO-PLY—(Knitting Twist) Cones

20s-2	$0.25	60s-2	$0.38 – .39
30s-2	– .26	70s-2	– .50
36s-2	– .29	80s-2	– .60
40s-2	– .30	90s-2	– .85
50s-2	.32 – .35	100s-2	.75 –1.03

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

20s-2	$0.25	60s-2	$0.38 –0.40
30s-2	– .27	70s-2	.59 – .52
36s-2	– .30	80s-2	.60 – .62
40s-2	.31 – .32	90s-2	.85 – .90
50s-2	.33 – .35	100s-2	.95 –1.02

SINGLES

12s	$0.18½	30s	$0.26
14s	– .19	38s	.28 – .28½
16s	– .19½	40s	.29 – .30
18s	– .20	50s	– .32
20s	– .21	60s	.38 – .40
24s	– .23	70s	.50 – .52
28s	– .25	80s	.60 – .63

MERCERIZED CONES—(Combed, Ungassed)

26s-2	$0.36½–0.38½	90s-2	$0.90
30s-2	.38 – .40	100s-2	1.15–1.25
36s-2	.40 – .42	120s-2	1.50–1.60
40s-2	.42 – .44	30s	.51– .52
45s-2	.42½– .44½	40s	– .56
50s-2	.45 – .47	50s	.61– .64
60s-2	.50 – .52	60s	.70– .73
70s-2	.64 – .66	70s	.80– .83
80s-2	.73 – .75	80s	.92– .96

Cotton Prices and Statistics

COTTON STATISTICAL DATA
(Fluctuations of Futures)

	Closed Jan. 7	For Week—High	For Week—Low	Closed Jan. 13	Net Ch'ge
January	6.28	6.47	6.28	6.54	+.26
February	6.31	6.44	6.31	6.57	+.26
March	6.38	6.57	6.35	6.63	+.25
April	6.45	6.58	6.45	6.71	+.26
May	6.53	6.73	6.52	6.80	+.27
June	6.62	6.75	6.62	6.88	+.26
July	6.71	6.91	6.70	6.98	+.27
August	6.78	6.93	6.78	7.05	+.29
September	6.88	7.01	6.88	7.13	+.25
October	6.95	7.15	6.93	7.21	+.26
November	7.02	7.17	7.02	7.27	+.25
December	7.09	7.28	7.07	7.34	+.25

SPOT FLUCTUATIONS FOR WEEK
(Middling)

	New York	New Orleans	Liverpool
Thursday, Jan. 7	6.45	6.26	5.39
Friday, Jan. 8	6.55	Holiday	5.33
Saturday, Jan. 9	6.35	6.35	5.39
Monday, Jan. 11	6.55	6.41	5.43
Tuesday, Jan. 12	6.55	6.38	5.48
Wednesday, Jan. 13	6.70	6.51	5.44

FOREIGN COTTONS
Egyptian Cotton

Alexandria Exchange, Jan. 12.		Change
Jan. Sak	12.28	+0.19
Feb. Uppers	10.00	+0.23

Jan.-Feb. Shipment c. i. f. Boston
(Tariff not included)

Fully good fair Sak (No. 38)	11.40
Fully good fair to good Uppers (No. 10)	9.25

(By Anderson, Clayton & Co.)

Foreign cottons	F. O. B. New York, Cents
Peruvian Tanguis Strict Middling	17½
Peruvian Pima No. 1	16
Peruvian Moderate Rough	13
Peruvian Full Rough	17
China Tientsin No. 1	10
India Rough	7 to 9½
India Smooth	6½ to 8½

(By Bruns-Nordeman Co.)

MOVEMENT INTO SIGHT

	This Year	Last Year
Week	354,000	180,000
Season	10,462,000	10,444,000

WORLD VISIBLE SUPPLY

	Jan. 7	One Year Ago
Interior towns and ports of U.S.*	6,921,000	5,785,000
Afloat to and at ports of Europe	1,528,000	2,001,000
Afloat to and at ports of Orient	925,000	379,000
Total	9,374,000	8,165,000
	Increase	Decrease
Change during week	88,000	61,000

*Includes afloat to New York.

FORWARDINGS TO MILLS OF WORLD

	This Year Week	This Year Season	Last Year Week	Last Year Season
No. States, U.S.	8,000	398,000	25,000	423,000
So. States, U.S.	71,000	2,450,000	85,000	2,155,000
Total U.S.	79,000	2,848,000	110,000	2,578,000
Great Britain	32,000	534,000	20,000	412,000
Continent	114,000	1,510,000	93,000	1,674,000
Orient	36,000	1,263,000	13,000	534,000
Canada and other America	5,000	100,000	5,000	118,000
Total foreign countries	187,000	3,407,000	131,000	2,738,000
World total	266,000	6,255,000	241,000	5,316,000

EXPORTS FROM UNITED STATES

Total	224,000	4,229,000	172,000	4,144,000

AVERAGE PRICE JAN.-FEB., SHIPMENT
HARD WESTERN COTTON
F.o.b. New England

	Middling	St. Middling
1 1/16-in.	8 – 8¼c.	8¼– 8¾c.
1⅛-in.	8¾– 9¼c.	9¼– 9¾c.
1 3/16-in.	9¾– 10¼c.	10¼– 11c.
1¼-in.	12½– 13¼c	13½– 14¼c

Basis on New York, March, 6.49.

SPOT FLUCTUATIONS AND STOCKS

Markets	Jan. 6	Jan. 13	Sales	This Week	Last Year
Galveston	6.25	6.50	3,425	964,573	652,253
New Orleans	6.26	6.51	7,135	982,973	765,576
Mobile	5.85	6.10	1,989	216,046	186,377
Savannah	6.14	6.38	40	301,548	317,416
Norfolk	6.25	6.53	403	69,956	95,041
New York	6.45	6.70	4,025	219,333	230,478
Augusta	6.06	6.38	1,479	132,418	121,721
Memphis	5.65	5.85	41,756	493,127	390,339
St. Louis	5.80	6.00	.....	.....	14,465
Houston	6.20	6.45	29,622	1,645,716	1,476,248
Dallas	5.80	6.00	42,998	48,609	29,002

DIFFERENCES ON AND OFF MIDDLING
WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M.F	0.65†	.75†	0.75†	0.75†	0.72†
S.G.M.	.50†	.50†	.65†	.63†	.57†
G.M.	.40†	.40†	.45†	.44†	.42†
S.M.	.25†	.25†	.25†	.25†	.25†
S.L.M.	.25*	.20*	.25*	.25*	.26*
L.M.	.50*	.50*	.55*	.50*	.60*
S.G.O.**	.75*	.75*	.90*	.88*	.92*
G.O.	1.00*	1.00*	1.25*	1.25*	1.27*
YELLOW TINGED					
G.M.	0.30*	0.25*	0.30*	0.31*	0.29*
S.M.	.45*	.40*	.45*	.44*	.47*
M.**	.65*	.50*	.65*	.50*	.67*
S.L.M.	1.00*	.90*	1.00*	.88*	1.03*
L.M.	1.35*	1.40*	1.35*	1.25*	1.41*
YELLOW STAINED					
G.M.	0.65*	0.60*	0.65*	0.50*	0.68*
S.M.**	.90*	1.10*	.90*	.75*	.97*
M **	1.35*	1.35*	1.35*	1.25*	1.42*
BLUE STAINED					
G.M.**	0.65*	0.35*	0.65*	0.50*	0.66*
S.M.**	1.00*	.85*	1.00*	.88*	1.02*
M.**	1.35*	1.10*	1.35*	1.25*	1.39*

**Grades not deliverable on contract.
*Off Middling. † n Middling

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA (IN GREASE)

Fine delne	$0.24 – $0.25	⅜ blood	$0.23 – $0.24
Fine clthg	.20 – .21	½ blood	.21 – .21½
¼ blood	.23 – .24		

TEXAS AND CALIFORNIA (CLEAN BASIS)

Texas, 12 months	$0.54 – 0.56
California, Northern	.46 – .48

PULLED—EASTERN (CLEAN BASIS)

AA	$0.58 – $0.60	B-Super	$0.43 – 0.45
A-Super	.48 – .50	C-Super	.38 – .42

MONTANA, IDAHO AND WYOMING (CLEAN BASIS)

Staple fine	$0.57 – 0.59
Staple ⅜ bld	.53 – .55
Fine and fine medium	.52 – .55
½ blood	.48 – .50
¼ blood	.41 – .43

MOHAIR—DOMESTIC

Best carding	$0.25 – 0.28
Best combing	.32 – .35

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.17 – 0.21
Cape firsts	.18 – .21

FOREIGN CLOTHING AND COMBING (CLEAN BASIS IN BOND)

Australia:	
70s	$0.41 – 0.43
64s	.33 – .35
58s-60s	.29 – .31

(IN GREASE)

Montevideo:	
58s-60s	$0.17 – 0.18
56s	.16 – .17
50s	.15 – .16
Buenos Aires:	
4s, 40-44s	$0.10 – 0.11
5s, 36-40s	.09 – .10

FOREIGN CARPET (GREASE BASIS IN BOND)

Aleppo washed	$0.19 – 0.20
China: Combing No. 1	.12 – .13
China Filling Fleece	.11 – .12
Szechuen ass't	.12 – .13
Cordova	.09 – .10
Scotch black face (nominal)	.14 – .16
East India: Kandahar	.15 – .16
Vican'r	.19 – .20
Joria	.19 – .20

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s 36s	$0.75
2-24s 40s	– .80
2-26s 44s	.82½ – .85
2-28s 46s	– .87½
2-30s 48s	.92½ – .95
2-32s 50s	.97½ – 1.00
2-30s 64s fancy mixes	1.27½ – 1.30

(Single yarns 5c. less than above)

2-36s 58s	1.05
2-40s, 60s	– 1.20
2-40s, 64s	1.27½ – 1.32½
2-50s, 66s	1.40 – 1.45
2-60s, 70s	1.82½ – 1.85

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	$0.70 – .72½
2-20s, 48s in oil	.72½
2-20s, 50s in oil	.72½ – .75
2-20s, 56s in oil	.92½ – .95
2-20s, 60s in oil	– 1.00
2-20s, 64s in oil	1.12½ – 1.15
1-18s, 48s dyed	– .90
1-18s, 50s dyed	.90 – .92½

(Oil yarns 17½c. less)

FRENCH SYSTEM

1-20s, 58s	.97½ – 1.00
1-20s, 60s	1.02½ – 1.05
1-18s, 64s, dyed	1.25 – 1.27½
1-26s, 64s	1.07½ – 1.10
1-30s, 60s, Warp	1.12½ – 1.15
1-30s, 64s, Warp	1.15 – 1.17½
2-30s, 64s, Fancy mixes	1.32½ – 1.35
2-40s, 64s, Zephyrs	1.27½ – 1.30
1-50s, 66s	1.42½ – 1.47½
2-50s, 66s	1.45 – 1.50
1-60s, 70s	1.75 – 1.80
2-60s, 70s	1.90 – 1.95

FRENCH SPUN MERINO WHITE

1-30s, 50-50-58s on cops	$0.90 – .95
1-40s, 50-50-60s on cops	1.00 – 1.02½
1-40s, 50-50-64s on cops	1.02½ – 1.05
1-40s, 50-50-64s Australian cops	1.10 – 1.15

Underwear mixes, 3 to 5c., Solid color, 35c. additional.

New York Top Futures

	Closed Jan. 6	For Week High	For Week Low	Closed Jan. 12	Net Ch'ge
January	68.00	73.00	67.00	71.10	+3.10
February	68.00	68.00	67.40	67.40	—0.60
March	68.50	68.50	67.50	68.00	—0.50
April	68.00	68.00	68.00	68.00	....
May	68.10	68.30	68.00	68.00	—0.10
June	68.00	68.00	68.00	68.00	....
July	68.00	69.20	67.50	67.50	—0.50
August	68.00	69.00	67.80	67.80	—0.20
September	68.00	69.00	68.00	68.00	....
October	68.00	68.10	67.50	68.00	....
November	68.00	68.00	67.00	68.00	....
December	68.00	69.00	68.00	69.00	+1.00

Tops and Noils

TOPS—BOSTON

Fine (64-66s)	$0.78 – 0.79
Half-blood (60-62s)	.72 – .75
High ¾ blood (58s)	.67 – .69
Aver. ¾ blood (56s)	.61 – .64
Low ¾ blood	.57 – .58
High ¼ blood (50s)	.51 – .53
46s S. A. and N. Z.	.56 – .58
44s S. A. and N. Z.	.51 – .53
40s S. A. and N. Z.	.48 – .50

TOPS — BRADFORD, ENG. (JAN. 9)

Fine (70s)	25½d	¾ bld. (56s)	18 d
Fine (64s)	23½d	½ bld. (50s)	13 d
½ bld. (60s)	22½d	Cross-bred (46s)	10½d

NOILS — BOSTON

Fine	$0.31 – $0.34	High ¼ bld.	$0.27 – $0.28
Half-bld	.30 – .31	Low noils	.21 – .23
Aver. ¾ bld.	.27 – .29	Medium colored	.22 – .24
Fine colored	.30 – .31		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.55 – .58
Lap, fine colored	.40 – .43
Hard ends, fine white	.41 – .43
Hard ends, ¼ blood white	.30 – .32
Hard ends, fine colred	.18 – .20
Hard ends, medium colored	.13 – .15
Card, fine white	.23 – .25
Burr, fine carbonized	.24 – .26

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, coarse light	$0.04½ – 0.05
Merinos, fine dark	.02½ – .03
Merinos, fine light	.08½ – .09½
Serges, blue	.04½ – .05
Serges, black	.04½ – .05
Serges, red	.07½ – .08
Knit, white	.20½ – .21½
Knit, red	.08 – .08½
Knit, light hoods	.08½ – .09
Worsted, light	.03½ – .04
Worsted, blue	.05 – .05½
Worsted, black	.05½ – .06

Silk Yarns

THROWN SILK (60 day basis)
Prices Nominal

Japan organzine, 2 thd. spec. gd. XX sk 85%	$3.30
Japan organzine, 2 thd. grand sk. 83%	3.10
Japan organzine, 2 thd. sp. crack. sk. 81%	2.95
Japan crepe, 3 thd. gd. XX bob. 83%	3.10
Japan crepe, 3 thd. sp. crack. bob. 81%	3.00
Japan grenadine, 4 thd. sp. grand singles, 87%	4.20
Japan grenadine, 3 thd. 90%	5.10
Canton crepe, 3 and 4 thd. 14/16 on bobbins	2.20
Hosiery tram, 3 thd. Japan 90%	3.95
Hosiery tram 5 thd, Japan, 85%	3.00
Hosiery tram, crack XX 78%	2.70

SPUN SILK YARNS (Terms: net 30)

40/2	$3.10	60/2	$3.45
54/2	3.30	62/1	2.35

Raw Silk

(60 Day Terms. Spot Goods)
Prices Nominal

	13/15 White	20/22 White	20/22 Yellow
Super Grand, 87%	$2.50	$2.10	$2.10
Special Grand, 85%	2.30	2.00	2.00
Grand XX, 83%	2.15	1.95	1.95
Special Crack, 81%	2.00	1.90	1.90
Crack XX, 78%	1.90	1.85	1.85
Extra Extra, 73%	1.85	....	....
Best Extra, 68%	1.75	....	....

Canton filature, new style, 14/16	$1.65
Canton filature, new style, 20/22	1.60
Tussah filature, 8 cocoon	.90

NATIONAL RAW SILK EXCHANGE

	Close Jan. 6	For the Week High	For the Week Low	Close Jan. 12	Net Ch'ge
January	1.76	1.77	1.74	1.77	+.01
February	1.77	1.79	1.76	1.79	+.02
March	1.79	1.80	1.78	1.82	+.03
April	1.80	1.82	1.78	1.82	+.02
May	1.80	1.84	1.78	1.82	+.02
June	1.80	1.82	1.78	1.82	+.02
July	1.80	1.83	1.80	1.82	+.02
August	1.80	1.82	1.78	1.82	+.02

Total number of bales, 1,730. Total approximate value, $437,171.00. Trading unit crack XX 13/15 white 78%.

Domestic Rayon

VISCOSE PROCESS

Denier	Filament	First	Second
30	8	$2.25	...
50	12-18	1.35	$1.25
75	18-30	1.20	1.10
100	18-40	1.00	.90
125	36-50	.90	.80
150	30	.72	.70
150	24-44	.75	.72
150	60	.85	.82
150	75-90	.85	.82
170	24-27	.75	.72
170	60	.85	.82
200	30-42	75	.72
300	42-62	.63	.60
450	42-72	.63	.60
600	72-96	.63	.60
900	100-144	.63	.60

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
75	$1.35	$1.25	150	$0.75	$0 72
100	1.05	.95	175	.75	.72
125	.95	85			

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	24	$3.10	75	60	$1.30
25	24	2.85	80	60	1.30
30	24	2.60	100	75	1.10
40	30	1.70	120	90	1.00
52	30	1.50	150	112	.90
65	45	1.40	180	135	.87

ACETATE PROCESS

Denier	Price	Denier	Price
45	$1.60	125	$1.10
60	1.50	150	1.00
75	1.40	300	1.00
100	1.30		

Rayon Waste

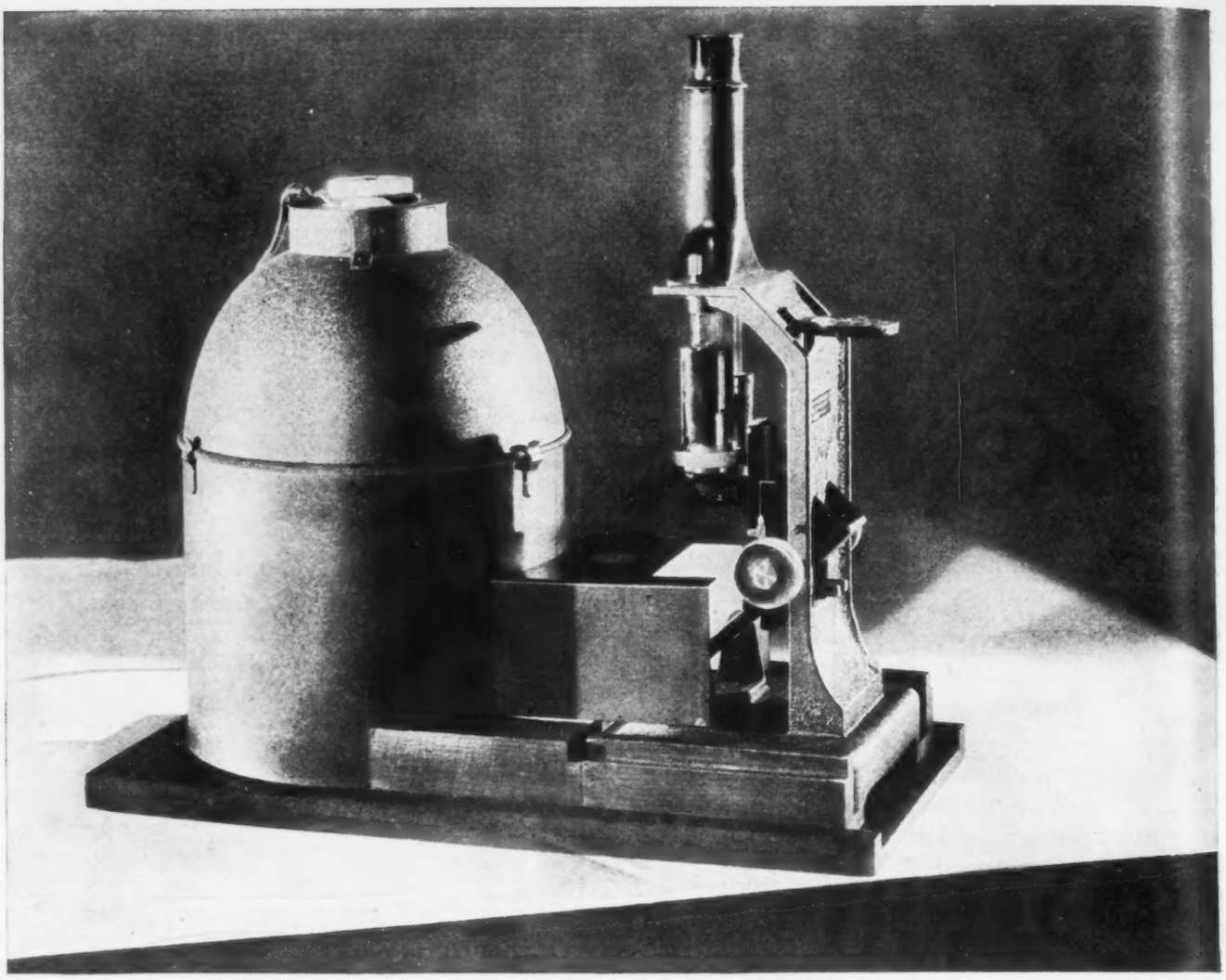
Open bleached waste	$0.13–$0.14
Open bleached waste	.10½
Bleached thread waste (mfs.)	.09
Bleached thread waste (misc.)	.06– .07
Colored thread waste	.03– .04
Colored clips	.03– .04

CONVERTED RAYON WASTE

Bleached tops	$0.30–$0.32½
Unbleached tops	.27– .28
Bleached noils	.11
Unbleached noils	.09½
Bleached garnetts	.12
Unbleached garnetts	.13
Colored garnetts	.10– .11

Silk Waste

Kibizzo Kakai Grand XX	$0.50
Kibizzo Kakai Triple Extra	.44
Frison Grand Double	.49
Pierced Cocoons	.50



(Photograph made with Bausch & Lomb Protar Lens)

Quality Demands pH *Control*

With B&L H-Ion *Colorimeter*

THE B & L H-Ion Colorimeter provides for quick, accurate determinations of pH in scouring and degumming baths, and may be used for testing the strength of dyes as well as for regular colorimetric analysis of solutions and water to determine the presence of copper or iron.

This instrument, with which results can be duplicated to .03pH, provides the most accurate colorimetric means for the determination of pH. Its value therefore in the manufacture of silk and wool fabric is apparent, where proper control of pH *must be maintained* to eliminate imperfections such as shrinkage, warp, hardness and splitting of the fibres.

The B & L H-Ion Colorimeter is convenient, compact and built to remain accurate under constant hard use. In design it is similar to the regular Duboscq colorimeter but it is provided with additional cups for pH work based on the use of bi-color indicators. The auxiliary cups may be held at any desired temperature by use of the constant temperature control tank. The pH of any bath may thus be determined *at the temperature at which it is operated.*

For information regarding the application of this instrument to your plant problems write BAUSCH & LOMB OPTICAL COMPANY, 632 St. Paul Street, Rochester, New York.

BAUSCH & LOMB